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JOURNAL OF DERMATOLOGY

UNDER THE DIRECTION OF

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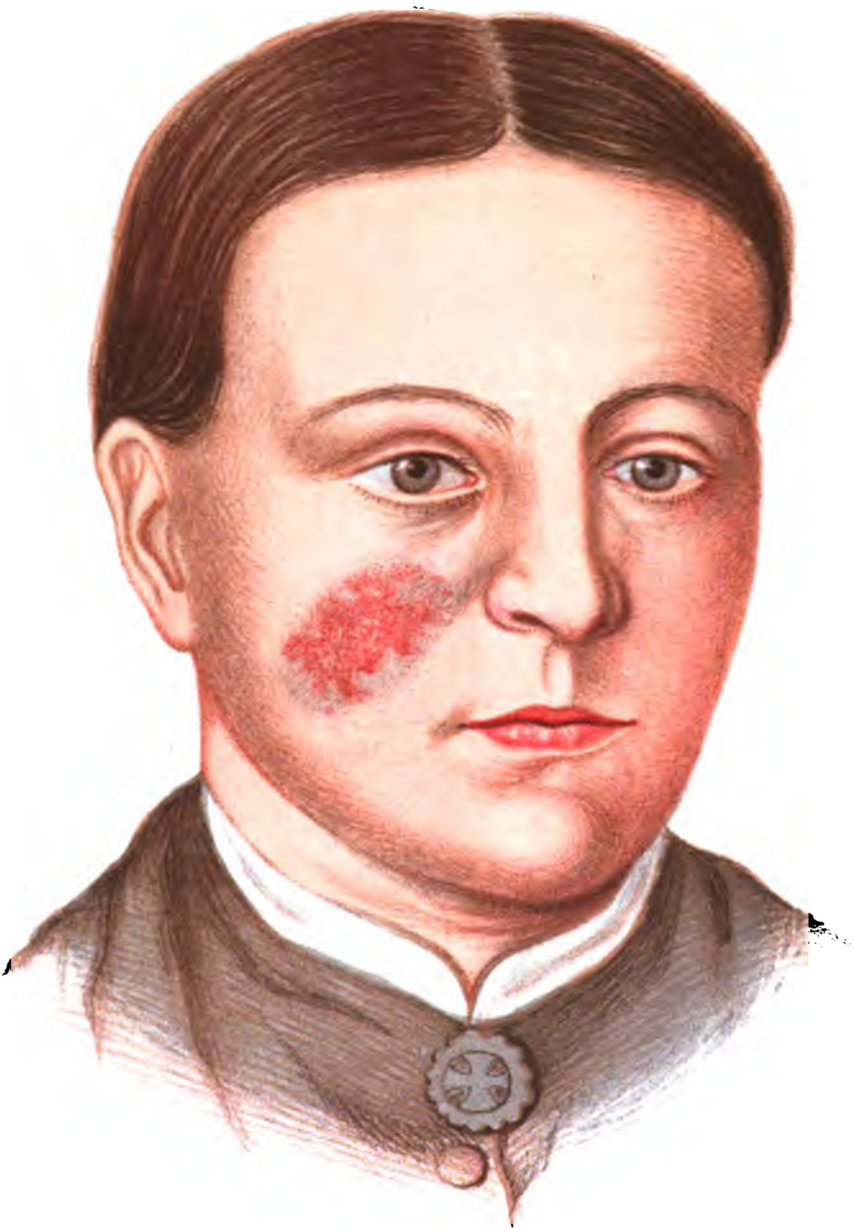

West, Newman chromo.

DESCRIPTION OF PLATE

To illustrate Mr. Hutchinson's Paper.

This portrait is the one referred to in the text, page 7. It has already been published in my "Archives of Surgery," but may still be new to some of my present readers, and will, at any rate, help to the better realization of the state described. It is that of a young woman named Herbert. I possess also a portrait showing the condition of her hands. Her case was of interest, as showing a mixed condition of common lupus and lupus erythematosus, in conjunction with a scar-leaving eruption on the hands. There was a strong history of phthisis in her family; she had herself always been delicate, and of very feeble circulation. Her hands presented a very peculiar condition, the fingers being covered with little red patches, in the centre of which were depressed white scars; these patches were arranged in groups, and were especially abundant near to the last joints and on the ulnar borders of the fingers. The patch on her cheek had been present for four years, and consisted chiefly of erythema, which resulted in scar; it had very slowly extended at its edge. The gums about her lower incisor-teeth were receding from the fangs, and were red and soft (a minimized form of lupus). She was liable to chilblains on her feet, and her hands were always worse in cold weather. During cold her fingers became dusky, and on several occasions her nails had inflamed and exfoliated.

The case shows strongly the association of liability to chilblains with the tendency to lupus. It was one in which an inherited predisposition to tuberculosis was combined with feeble circulation and the chilblain tendency. The patch on the cheek got well under treatment by cauterization, and Miss H. was much improved in general health. She died of typhoid fever about three years after the portrait was taken. Her case may be compared with that of Col. —— (see "Rare Diseases of the Skin").

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ON THE TENDENCY TO FLUSH AS A CAUSE OF MORBID CHANGES.

BY JONATHAN HUTCHINSON, F.R.S., LL.D.

Amongst the anatomical regions which in virtue of their special structure and vascular supply are liable to peculiar forms of disease, we must count the middle of the cheeks. In these parts the capillary circulation is very abundant and superficial, and is also liable to remarkably frequent physiological change. It is the part in which blushing begins. It is the part in which exposure to heat and cold are first shown by florid congestion in one case and more or less of lividity in the other. It is the part in which the flush after meals in those who are liable to such flushing usually starts. It might perhaps be a matter of convenience if we were to designate this region as "the flush-patch," for we frequently have to speak of it in reference to disease occurring on the face. It is generally recognized as a sign of health that this flush-patch should merge insensibly into the rest of the cheek. When it is abruptly circumscribed the condition is generally indicative of more or less delicacy of organization.

A Case in Illustration.

I have been induced to make the preceding remarks as introductory to the following case. A gentleman, aged 32, consulted me on account of curious patches of what my notes taken at the time denote as

,‘ dusky acne with redness and swelling in the middle of the cheek." He had been for long under the care of specialists on account of his condition, for it was very conspicuous and gave him great annoyance. He had never had syphilis, but he was of delicate and decidedly phthisical aspect. He was the offspring of a marriage of first cousins, and though both his parents were in excellent health, three brothers and sisters, including himself, had peculiar eruptions on the skin of the face, all of them suffering from extreme susceptibility of the skin with liability to flush. The case of one of his sisters I shall describe presently. Another sister was confined to her bed in consequence of very severe attacks of hæmatemesis, with a diagnosis by Sir Andrew Clark of ulceration of the stomach (I have noticed this several times in the relatives of those who have suffered from lupus erythematosus). The affection of the cheeks from which Mr. F. suffered had commenced on the left cheek about five years ago. Previous to that he had suffered from flushing of the face during taking food and after meals. The flush-patch on the left cheek became after a time permanently swollen, and three years later the other cheek took on a similar condition. It differed in appearance from lupus erythematosus but little. There were, however, the facts that the nose was not conspicuously affected, and that the patches on the cheeks did not spread. My note on the first occasion that I saw him states that the nose was not affected; but on the second occasion I observed that it was decidedly rough and presented in a slight degree the orange-peel condition. Perhaps the fact that it did not show a definite lupus erythematosus condition was partly to be explained by the circumstance that his features were very thin, and his nose particularly so. Mr. F. said that his cheeks were always worst during hot weather and after exposure to wind. Cold weather, if not windy, suited him. He said that he was accustomed to flush after every meal, and it did not seem to matter what he ate. Eating would make him flush quite as much as taking stimulants. The condition was a mixed one between lupus erythematosus and acne rosacea. In the middle of the elevated flush-patch there were a number of ill-marked dusky acne spots. He had, in addition to what I have described on his face, a patch of dusky erythema on one shoulder. Mr. F. had been for several years under the care of one of my specialist friends on account of his cheeks, and he came to me during an attack of herpes frontalis, which had been induced in all probability by the arsenic which had been prescribed.

I have seen this gentleman repeatedly since the above notes were written out. The condition of his cheeks has a good deal improved under tonic treatment, and there has been not the least advance in the direction of lupus. He has repeatedly suffered from slight pleuritic attacks, and I have no doubt that he has phthisical tendencies. He has suffered also to an unusual extent from nocturnal emissions, after which he often feels as if he would faint. I have no doubt that his sexual system very definitely injures the balance of his circulation.

CASE OF THE PRECEDING PATIENT'S SISTER ILLUSTRATING SIMILAR CONDITIONS.

Miss F., sister of the subject of the preceding case, was brought to me on January the 19th, 1888. The flush-patches on her cheeks were somewhat in the same condition as in her brother, but not nearly so conspicuously marked. She considered, however, that her skin was much more susceptible than his, and said that her cheeks, face, and neck were very liable to swell and become red on exposure to cold. She was comparatively well in hot weather and whilst remaining in a warm room. In cold weather, on going to her bedroom, she almost always began to shiver, and then her face and skin generally began to tingle and burn. The irritation often kept her awake a considerable part of the night. The condition differed from urticaria in that there was diffuse redness and swelling, and no separate patches. The liability had been increasing for six or eight years, and Miss F. attributed its commencement to some sort of shock, but of this there was no very definite history. Her skin was very susceptible to the irritation of woollen clothing. She had cold extremities, and was, like her brother, thin and delicate-looking. Her age was twenty-six.

The occurrence of such similar conditions in a brother and sister must be held to prove inherited proclivity as regards structure. No doubt they were alike as regards the physiological endowments of their blood-vessels, and they had both come under the influence of the sexual system as an exciting cause. Hence the closely similar manifestations in the mesh of vessels—amounting almost to erectile tissue—which constitutes the flush-patch.

CASE OF FLUSH-PATCH CONGESTION OR ACNE ROSACEA. A DEFINITE CAUSE RECOGNIZED.

A remarkable example of what may be called the "flush-patch erythema," or acne rosacea without acne, occurred in the person of a married lady, aged 33, who came under my care in January of 1889. She had large "bat's-wing" patches of a deep, dusky red, covering both cheeks, and connected together across the nose by a band which passed up its sides. The tip of the nose was, however, not in the least red. On these patches there was not, let me say, a single acne pustule, but there were a few small ones on her chin and upper lip. The condition was extremely disfiguring and almost forbade her going into society; but I was assured that what I saw was nothing to what it always became after dinner. There was no redness of the ears. The "bat's-wing" condition was so perfect that at first I was inclined to believe that it was lupus erythematosus; but on close inspection there was not the slightest tendency to the production of either discs or scars, nor were the areas very abruptly defined. They were stippled all over with red points, and showed also many little sea-weed-like tufts of dilated venules.

This case may be taken as a typical one of the form of acne rosacea, which consists of permanent congestion of the flush-patches. It differs from the more common cases in the depth of the purple colouration, and in the almost entire absence of acne spots. It is of interest because we are able to assign a cause with considerable confidence. The patient stated that until the beginning of the year she had been simply rosy-cheeked, and that not in a very marked degree. At that time she was advised, in consequence of having been slightly out of health, to try port wine, and for two or three months she took one glass in the forenoon and another at four o'clock regularly. This dose of wine was in addition to bitter ale with her meals. At first she was not conscious that it flushed her; but towards the end of the experiment it was obvious to all that her cheeks were getting very red, and she became aware of increased flushing after meals. She now left off port wine, but the condition went on increasing, as did the tendency to flush after dinner. She enjoyed good digestion, and was not aware that anything disagreed with her. The flushing after meals was not attended by much burning sensation or much discomfort, and it was noticed by her friends rather than by herself. Mrs. G. was a sprightly lady, of active habits, and with a rather thin skin. The pallor of the tip of her nose and the entire absence of any tendency to thickening of it were very conspicuous.

No doubt the precise form which acne takes is determined by the previous proclivities and temperament of the patient. Had this patient had a thick skin with abundant glands, probably acne tuberosum would have been developed. She was not aware of any remarkable proclivity to acne in her family.

Case illustrating the relationship of certain Forms of Acne Rosacea with Lupus Erythematosus.

The case of Mr. H. affords an important illustration of some of the laws as to pathological partnerships, and also of those of habit as a pathogenetic force. It might have been claimed as one of chilblain, of acne rosacea, of eczema, or of lupus erythematosus, the truth being, as I conceive, that it was one and all at the same time. It had, in addition, as many cases of lupus erythematosus have, a close alliance with Raynaud's malady. Mr. H. was a gentleman of thirty-seven, engaged in an office. He was of fair complexion and thin transparent skin. He had suffered much in childhood from chilblains and was still liable to them. His hands were always more or less dusky and red, and if he put them in cold water his fingers would become quite white and "dead." His chilblains had affected his ears and caused slight ulcerations. Such were his original proclivities, and it may be added that he inherited them from his mother. He had become five or six years before I saw him very prone to flush. His meals always made him flush, without much regard to what he took, and if the room were either cold or hot he was sure to flush, the colour being in the one case bright and in the other dusky. This tendency increased, and at length his nose, cheeks, and forehead became covered with erythematosus patches, which were slightly eczematous. In this condition he consulted me (May 3, 1888). I then diagnosed acne rosacea, adding to my notes "with tendency to eczema-psoriasis on the scalp." I noted also that there was an abnormal redness on his lips and tongue. He told me that his face got worse in winter, and was never well. When he came to me for a second time, nearly a year later, the conditions were such that I was on the point of making a diagnosis of lupus erythematosus. There were now very definitely marked "bat's-wing" patches of erythema on his cheek with a central body on the nose. The erythema was persistent and moderately well circumscribed, and in some places very slight tendency to the production of scar could be observed. His ears also were involved in a condition of persistent erythema, and presented at the edge of the helix some slightly ulcerated spots. The concha, on the contrary, was quite healthy.

Cases of lupus erythematosus may be classified into two groups, one in which the changes are chiefly those of the vessels (erythematosus proper), and the other in which the sebaceous glands are severely affected (the sebaceous form). A large majority of cases present mixed features, but in a few instances we find the type almost pure. There are but few cases of lupus erythematosus in which the orange-peel patches are not present in the concha of the ears. These patches always denote sebaceous complication. Lupus sebaceous shades off at one end into cases which are indistinguishable from seborrhœa and lupus erythematosus; on the other into cases which can scarcely be diagnosed from acne rosacea or exaggerated flush-patches. Of the latter group, the present case affords a good example. The proof that such cases really belong to the lupus family can be obtained in each instance only by a careful study of the sequel. Every now and then we undoubtedly have opportunities of seeing a patch which at first only deserved the name of seborrhœa, finally assume the features of the sebaceous variety of erythematous lupus, and, though perhaps less frequently, we see acne rosacea or mere flush-patches take on the characters of its more purely erythematous form. Cases in which the features of these several maladies are so inextricably mixed that it is impossible to give an accurate diagnosis—one which others equally skilled might not plausibly criticize—must have come under the notice of all. We can understand their relationships quite easily if we take into account the several causes which are at work in the production of each. Amongst these causes we must give a very important share to the original endowments of the skin of the individual in whom the disease is developed. Those of thin and fair skins with but a small development of the sebaceous glandular system are more prone to the erythema type of lupus erythematosus than those in whom the skin is thicker and the sebaceous system more largely developed.

I suppose that all will agree that the final justification of the diagnosis of lupus erythematosus from exaggeration of the flush-patches and from certain forms of acne rosacea rests on three conditions. Lupus erythematosus has an infective edge and spreads at its edges; it is attended by satellite discs, and it leaves scars. If these three features are present, then there can be no doubt as to what the disease should be named. There are, however, many cases in which several, or even all three, may be for a time absent or very ill-marked. More especially in the purely erythematous forms it is often difficult to prove that cicatrices have been left. Thus the differential diagnosis is sometimes not so easy as it may be supposed. My argument is that there are certain cases in which it is not only difficult, but impossible, without doing violence to the facts.

A Peculiar Form of Chilblain-Lupus affecting the Flush-Patch.

There is a peculiar form of lupus, more nearly allied to vulgaris than to erythematosus, which begins in the flush-patch. It is not usually attended by any definite lupus-granulation-tissue (apple jelly), but approaches perhaps more nearly to a persistent chilblain of the cheek. It produces appearances resembling a bruise on an apple, and is followed by a scar which displays stigmata. I have given a portrait of such a patient in my "Archives of Surgery" (vol. i., plate X.), which is here reproduced. Unlike lupus erythematosus, it is usually on one side only.

LYMPHANGIOMA CIRCUMSCRIPTUM (LYMPHANGIOMA CAPILLARE VARICOSUM).

PART II.

BY DR. LUDWIG TÖRÖK.

(Continued from last month's Journal.)

IT is evident that with these processes it is a question of hyperplastic changes of the lymphatic system, without taking into consideration the above-communicated results, as quite the same forms of vesicular formations of the origins of the lymph-vessels that are to be found in the papillary body of the corium, occur in the cavernous and far-extending varicose lymphangiomata of the larger trunks of the lymph-vessels, in which, as already stated (see Nasse., *l.c.*, and Klebs, *l.c.*), the proliferating process has already been more frequently proved to exist. We only wish to mention a few examples. In a case communicated by Gjorgiewicz (*Langenbeck's Archiv für klin. Chirurgie*, vol. xii. part 2) superficial small lymphatic cysts were found over a subcutaneous lymphangioma cavernosum. Of cases of varicose lymphangiomata I will only mention the one communicated by Pethers and Klebs (*Prager Vierteljahresschrift*, vol. 125, according to Klebs), with which the vesicles were on the labia pudenda, and the hyperplastic process could be proved as well by the progressive character of the affection as histologically, and the case of Bryk (*Arch. für Chirurgie*, xxiv., according to Esmarch and Kulenkampff), in which the histological examination showed new growth of lymph-vessels, and the progressive character of the process of the disease was likewise distinctly recognizable. In the latter case the pathological process was, at the beginning, only confined to the feet. From the fifteenth year it spread more and more, and appeared on parts that lay far away from the region originally affected (the upper extremity, the palate, the posterior nares, the lumbar, hypogastric, pleural as well as other plexuses). The lymph-vesicles communicating with the newly-formed lymph-capillaries were, in this case, especially found on the skin of the lower extremity.

Capillary dilatations of the lymph-vessels which agree entirely in appearance with the capillary varicose lymphangiomata go together also with elephantiasis.* These, too, owe their origin to a hyperplasia of the lymphangioblasts.

This is already proved by the uncertainty which exists in regard to the time of the appearance of the little cysts in elephantiasis. In most cases of congenital elephantiasis the dilatations of the superficial and deep lymph-vessels appear upon the scene at the very beginning; there are, however, also cases in which elephantiasis first develops, and only later on the springing-up of the vesicles or herpetiform patches takes place; as, for instance, in a case observed by Day, No. 49, Busey.† This is naturally explained by the supposition that in one case the hyperplastic process attacked the lymphatic system earlier, or in a greater degree, and that hyperplasia of the connective tissue only followed, or developed more slowly, and that in the other case the process was reversed. This supposition is also supported by cases where, as in the observation of Thilesen (case 52, Busey), the vesicles occurred in considerable numbers upon an elephantiasis of the right leg, which existed from the first year of life, and which from time to time swelled out, and was attacked by lymphorrhœa, when—at the tenth year—a more rapid increase in the circumference of the limb in question took place. This view is supported by cases recorded where, in addition to elephantiasis and the lymph-cysts, other hyperplastic conditions existed. Thus, for instance, in one case of Friedbergh (case 48, Busey), at birth there was found to exist elephantiasis of the right leg and foot, of the left hand, a few lipomata upon the back, hard and swollen lymph-glands of the right side of the neck, vascular nævi, and dilated veins on several parts of the thorax and on the left hand. Besides this, thick cords of a network could be felt in the left axilla, and the inner side of the region in question was sprinkled over with pale vesicles. In its further course, giant-growth of both arms and hands took place. The case which is similarly to be explained is the observation No. 1 of Busey, where there existed a congenital elephantiasis thickening of the right lower extremity with four nævi, cavernous hæmangioma, lymph-cysts in the abdominal cavity, in the subcutaneous connective tissue, and between the muscles of the extremity in question, and, finally, superficial groups of vesicles which communicated with the lymph-vessels, and which were filled with clear lymph.

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* Considering that we are obliged—as we shall show later on—to assume a congenital disposition to the formation of cutaneous lymphangiomata, we refer here only to the congenital elephantiasis, or to elephantiasis which can be traced to congenital conditions.

† The cases to be mentioned in the following lines we give out of the work of Samuel C. Busey, *Congenital Occlusion and Dilatation of Lymph-Channels.* New York, 1878. In the case of Day, elephantiasis existed from the age of 2½ years. The skin of the hypertrophied lower extremity retained the normal aspect during the gradual increase in volume. During the growth the vesicles sprang up on the diseased leg, penis, and scrotum.

A short time ago I had the opportunity of examining microscopically such a capillary lymph-cyst, and could find no considerable differences—at the utmost only in degree—in regard to the dilatations, as compared with pure capillary varicose lymphangiomata.

In this case we had to do with a boy, twelve years of age, weak and anæmic, who had suffered formerly a good deal from disease of his glands.*

On the posterior and inner aspect of the lower third of the thigh I found a sac-like thickening, about the size of a child's fist, which was formed by two flaps of about the same size lying upon each other; this thickening slopes gradually towards the healthy region, and passes on into it without any well-marked outlines. Over its surface runs a transverse, very faintly indicated furrow, which marks the border of the flaps. The thickening is in its principal mass of a soft doughy consistence, towards the middle somewhat denser, and, especially upon the upper part, an oval, firm substance of about the size of a hazel nut can be felt through it, to which the epidermis is somewhat more firmly adherent. The whole of the thickened part is movable over the muscles; the epidermis, on the other hand, is not, and can only be folded with the surface of the tumour. Upon the skin over the thickened part we find vesicular or wart-like formations, of the size of the head of a pin or somewhat larger, solitary, united into groups the size of a sixpence, or arranged in short curved lines. After the separation of the thick horny layer, the warts appear also as round, semi-spherical prominent vesicles. The vesicles are, with the exception of a small group containing blood, transparent, filled with a yellowish clear fluid, and can only be little compressed by the pressure of the finger. After the cessation of the pressure they quickly regain their former size. The placing of an elastic bandage above or below the thickening has no distinctly recognizable influence upon the ability to fill, or upon the size of the swelling. With the exception of the just-mentioned changes, the skin bears a perfectly normal aspect.

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* This case was demonstrated by Dr. Leo Leistikow at the Medical Association of Hamburg.

The affection began ten years ago, and, as stated, in consequence of an incised wound, caused by the splinters of a pot, which soon cicatrized. At the present time nothing is visible of the scar. The corresponding part of the thigh became gradually thickened, and simultaneously the first vesicles appeared, the number of which gradually increased. No inflammations or oozings took place as it advanced. No subjective symptoms.

We had to do in this case with a circumscribed, soft fibromatosis, with formation of capillary lymph-cysts, which, as one may well suppose, having regard to the slight nature of the injury, the absence of subsequent inflammation, and the early development, developed itself in consequence of some congenital disposition, the injury having provided the exciting cause. One of the solitary cysts was removed, hardened in alcohol, and made use of for microscopical research. The wound healed in the course of a week.

The differences in regard to the results with the above-described capillary lymphangiomata are especially brought about by this fact, that we had to examine there groups of vesicles of the size of a bean up to a hazel nut, whereas only one vesicle in this case, of about the size of a pin's head, and its immediate neighbourhood. This vesicle took up, in cross section, the space of about five papillæ, and had arisen by the confluence of several neighbouring cavities, which was still shown by the remnants of individual former septa. It was lined by a flat endothelium, which was wanting in some parts on the upper border, where the endothelial lining was directly adherent to the prickle layer, which was reduced to two layers. The vesicle contained granular coagulated lymph, a few white blood-corpuscles, and here and there a larger cell with a vesicular nucleus, probably an endothelial cell detached from the wall. The connective tissue lying on the inferior border of the vesicle was stratified parallel to the border itself. In the papilla nearest to the vesicle, and as far as the third or fourth neighbouring papillæ, further changes of the lymph-vessels are visible. The papillæ are rich in nuclei, with endothelium-lined, fine lymph-spaces running up to the top of the papillæ; others, which are provided with rather dilated cavities, which possess a closely-arranged endothelium, rich in protoplasm; these cavities pass on downwards into capillaries, and contain coagulated lymph and white blood-corpuscles. In others the dilated lymph-vessel rises up only to half the height of the papillæ, and nothing abnormal is found in them except a slight increase of nuclei. The deeper lymph-vessels of the stratum papillare and reticulare corii are unchanged. The connective tissue of the corium is somewhat richer in nuclei. We must also, in consequence of these results, so similar to the former, conclude that a proliferating process of the lymphangioblasts has taken place, and exclude a simple ectasy in consequence of lymph-stasis.

I also believe that, by this theory of capillary dilatation of the lymph-vessels in elephantiasis, Hoggan's case of multiple lymphatic nævi of the skin can rightly be included. The entire process of development of the disease (see the history of the disease given in the first section), and all the symptoms of the same, speak in favour of this case having to be considered as one of elephantiasis. Hoggan, moreover, considers it to be its early stage. The patches, to which the hyperplastic vessels in the corium correspond, Hoggan calls lymphatic nævi; with regard to which he, if I understand rightly, expresses the view that these vascular bundles, so to speak, are of embryonic origin. Nothing, however, speaks against the theory that this hyperplasia of the lymph-vessels, like that of the connective tissue, was lighted up at the time of the erysipelas-like inflammation, particularly if we regard the fact that in this case, up to the sixth year of the patient's life, no phenomena of any congenital vascular anomalies existed, and that the disease in question only occurred after the inflammatory attacks. It is certainly in this case, too, hardly possible to exclude a congenital disposition of the lymphatic system towards similar proliferation, if one considers the relatively early development of the affection and the change of the lymph-vessels which is restricted only to individual patches.

According to our opinion, this case shows that hyperplastic processes of the lymphatics exist already in the earliest stages of certain forms of elephantiasis, and that they initiate the further changes of the latter.

The cases of elephantiasis mentioned up to now, which can all be traced back to congenital conditions—in common with the Case III. of Hutchinson, in which erysipeloid inflammation took place, and with the cases observed by Tilbury and Colcott Fox, in which later on elephantiasis thickening took place—proved further, that from the capillary varicose lymphangioma of the skin likewise, as Klebs (*l.c.*) mentions in the case of varicose lymphangioma of the larger lymphatic vessels, gradual transitions to the general hyperplastic development of the tissue (Klebs, *l.c.*) are found, as in what is described as elephantiasis.

The other cases of lymphangioma observed in the skin are distinguished in essential points from those mentioned till now. In the case of Kaposi's (lymphangioma tuberosum multiplex) the process had especially developed throughout the corium lying beneath the papillæ; the papillæ, to judge by the drawings that were given, were free from cavities; the subcutaneous fatty tissue had not been involved in the process. In the histological description of Kaposi's (*Pathologie und Therapie der Hautkrankheiten*, 1887, ii. Hälfte, p. 743) the wall of the enormously dilated lymph-vessels was mentioned as thickened. He enters, however, in the text, no further into details as to the condition of the hypertrophied walls,* and even in the drawings no particular hypertrophy of the walls is visible. From the above description a hyperplasia of the connective tissue, which is found between the cavities, may perhaps be meant, this hyperplasia causing the tuberous form of the lymphangioma, which was disseminated over the whole body. We can see by this short description, as well as from what was mentioned in the first part of this paper, that this case is distinguished clinically and histologically from the vesicular forms described hitherto, which affect only the uppermost layers of the corium, and occur in one or a few patches. We can, therefore, by no means agree with the view of Hoggan, who includes the case of Kaposi with the lymphangiectodes of the two Messrs. Fox.*

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* In the first description of the case in the work of Hebra and Kaposi (Lehrbuch der Hautkrankheiten, 1876), muscular walls of these cavities are mentioned. They are, however, no more referred to in the above-mentioned text.

Pospelow and subsequently Kaposi classify with lymphangioma tuberosum multiplex a case observed by the former; Hoggan, on the other hand, believes that he is able to classify this with a case already previously mentioned under the title of lymphatic nævi of the skin. We believe that there is not sufficient reason for both. Pospelow's case was distinguished from the two others with which it was compared in regard to its clinical aspect as well as in its anatomical structure.

In contradistinction to Kaposi's, in which the nodules were moderately firm and similar to syphilitic papules, we must, from the clinical standpoint, pay attention to the fact that the lymphangiomata which Pospelow observed were translucent, and disappeared with pressure. With the patient of Hoggan, on the contrary, the protuberances on the lower extremity appeared when the erect posture had been assumed for some time, and they vanished spontaneously with rest in bed. Just as clear distinctions resulted from the histological observations, the histological illustration added to the article of Pospelow shows, especially in the deeper strata of the skin, the appearance of a cavernous lymphangioma. Besides transverse and diagonal sections of dilated lymph-capillaries, we find here a considerable number of oddly formed cavities, into which remnants of former septa protrude. Broken-down walls are likewise mentioned in the text of Pospelow.

In the case published by Hoggan nothing of this was to be seen. On the spot in question a broad layer of very closely-lying-together and very tortuous lymph-vessels of quite a normal condition were found below the papillæ.

The observation of Van Harlingen, which we know only by the reference made to it by C. Fox, appears, on the other hand, to correspond with that of Pospelow. For the bluish elevations, the size of the head of a pin up to a hazel-nut, which developed in a woman thirty years of age, were here likewise compressible, and offered to the touch very much the same sensation, so much so that the two authors made use of the same comparison; that is to say, they had to the touch a feeling like that of an air-pillow, and, on their being compressed, the authors both compared the sensation to that felt on pressing an umbilical hernia of a child.

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* In the translation of Kaposi's work by Besnier and Doyon (vol. ii., p. 230, 1881) we read the following remark: "L'un de nous a observé un exemple très remarcable (lymphangioma tuberosum multiplex), ayant son siège sur les deux mains, particulièrement à la face dorsale, chez une jeune fille strumeuse, mais il ne nous a pas été donné d'en faire l'examen histologique."

We have consequently to distinguish in the skin, in a narrow sense, three forms of capillary lymphangiomata.

1st. The *varicose lymphangioma.*

2nd. The *tuberous* (*fibromatous*) *lymphangioma.*

3rd. The *cavernous lymphangioma.*

The two latter forms occupy—in contradistinction to the first, which, in the cases that have been hitherto published, concerned only the uppermost layers of the corium—the whole width of the corium, and spare only the most superficial layers of it.

We must yet enter into the question of what may be the cause of the formation of lymphangioma? From many sides arguments have been brought forward against the supposition that simple lymph-stasis was the cause of it; so that, referring to the literature of the subject, especially the detailed researches of Esmarch and Kulenkampff (*the elephantiasis forms*, Hamburg, 1885) and Nasse (*l.c.*), it is not necessary for us to go into this question, as we could also prove by our researches the existence of a neoplastic process.

The above question reduces itself to that of what may be the cause of this hyperplastic process. Esmarch and Kulenkampff assume for this a local disposition, the expression of which (*l.c.*, p. 157) they perceive in anomalies of formation of the lymph-vessels of a limited region, dilatations, defective valvular apparatuses, partial occlusion, anomalous course, or orifices; in short, in conditions which lead easily to a local stasis of the normal lymph. They lay particular stress upon the fact that it is passive congestion of normal lymph which might call forth the hyperplasia; that, on the other hand, lymph produced by congestion was poorer in dissolved and corpuscular elements (as, for instance, in heart diseases), and was not able to bring this about. Against this view we have to raise the following objections:—

In the cases mentioned by Busey, there were three in all in which disturbances of the circulation of the blood could be considered as the chief factors. Of the cases we mention, especially the case of Cholmeley (No. 69, Busey)—congenital defect of the heart; from the sixth year swelling of right leg, occurrence of lymph-vesicles and lymphorrhœa. In this case, however, the hypertrophic changes, in contradiction to this—as one must expect it in changes which are conditioned by stasis called forth by mechanical causes—were only limited to the one side. We must, therefore, in the sense of Esmarch and Kulenkampff, assume that there also exist local anomalies in the circulation of the lymph of the side in question. (E. and K., *l. c.*, p. 159.)

It cannot, however, be understood why these now should excite the hyperplasia of the lymphangioblasts, as they can at the utmost increase the stasis of the lymph, which is due to other causes, on the spot in question. But whatever material may become stagnant on this spot could, under existing circumstances, be nothing else but the same lymph that is produced by disturbances of blood circulation.

These supposed anomalies in the circulation ought then, moreover, to have an equal influence upon the endothelia of the papillary lymph-vessels of a certain region; we find, however, often close to the considerably dilated lymph-capillaries papillæ which show nothing abnormal besides a considerable richness in cells. One would in that case be obliged to suppose that another disposition of certain lymph-capillaries existed, in order to be able to answer for hyperplasia in regard to the local lymph-stasis.

We should also like to call attention to the following circumstance, which, we believe, can likewise be mentioned with some justification against the supposition of Esmarch and Kulenkampff. With urticaria there exists an œdema which is limited to a circumscribed territory. The lymph which in this case engorges the lymph-vessels of the region in question, can hardly be placed in quite the same class with the product of the stasis in diseases of the heart, having regard to the primary congestive hyperæmia and the phenomena of irritation due to the nerves. In spite of the frequent repetition of the engorgement of lymph in one and the same spot, as it occurs in urticaria pigmentosa, no increased activity of the lymphangioblasts in question takes place.

It is only with difficulty that one could imagine similar disturbances of the circulation of the lymph, as they were spoken of by Esmarch and Kulenkampff, having regard to the extensive development of the sub-papillary network of lymph-vessels, and that these disturbances should be capable of causing stasis of the lymph in a larger or smaller papillary region; and one would in that case be compelled to assume such stases for the capillaries of varicose lymphangiomata. The explanation of local disposition, by assuming conditions in the circulation, which would call forth a local stasis of the lymph, appears to us not admissible in consequence of the above-mentioned reasons.

Inflammations alone, moreover, cannot furnish the cause of this proliferation of the angioblasts; for, with the exception of one case of Hutchinson, one of Tilbury Fox and Colcott Fox, the other lymphangiomata of the true cutis developed and ended without the least inflammatory phenomena. The same stands good in some cases of congenital elephantiasis, or in lymphangiomatous elephantiasis that develops itself early. In consequence of the immediately above-mentioned reason the stasis and the inflammation alone cannot be the causes of the proliferation and of the ectasy of the lymph-vessels. By the more extensive filling up of the lumen of the vessels in question, which state accompanies dilatation and inflammation, and by the accumulation of nutritive material, the proliferation of the endothelia and the dilatation of the vessels that run parallel with it may, however, be assisted.

As, with the exception of a case of Hutchinson and of Van Harlingen, all the other lymphangiomata of the cutis were either congenital or developed during infancy, after all we have just now said, nothing else remains to us but to seek for the local disposition of these cases in a congenital, more considerable energy in the growth of the angioblasts of the region in question, the cause of which, in the present state of our knowledge, is still wrapped in complete darkness.

Disturbances of some nerve centres regulating the growth might, however, have something to do with it. There are cases at least, like that of Köbner (lymphangiomata capillaria, multiple neurofibromata, atrophy of the muscles of the part affected, arrest in the growth of the affected limb, hyperidrosis, rise of temperature of the affected side, *l.c.*), and that case communicated by Friedberg (lymphangioma capillare, in addition to giant-growth of both arms and hands, Virchow's Archiv, vol. xl., after Busey), which induce us to advance this theory.*

REMARKS AS TO PLATE.

Figs. 1 and 2. General view taken with the drawing apparatus of Abbe. Ocular 2, objective aa. Zeiss. Fig. 1 shows circumscribed dilatation, Fig. 2 tubercular, here and there considerably dilated coils, which are closely pressed together. Both are cut somewhat obliquely to the direction of the papilla. Figs. 3, 4, 5, and 6 are drawn with Reichert's ocular 2, objective 7, by Abbe's drawing apparatus: reduced two-fifths in the plate.

In Fig. 3 b. deeper lying septa.

Explanation will be found in the text.

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* More recent investigations (Holschewnikow, Ein Fall von Syringomyelie, &c., verbunden mit trophischen Störungen. Bd. 119, 1890) have rendered it probable that the Acromegalie, or Pachyacria, as Rechlinghausen calls the process, on account of its relation to pachydermia, is dependent on pathological processes of the nervous system.

NOTES ON SOME KERATOSES OF THE PALMS AND SOLES.

BY H. G. BROOKE.

The various forms of thickening of the skin on the palms and soles make up a complicated chapter in Dermatology, and one which is far from being well understood. So closely do some of the forms resemble each other, particularly in their advanced stages, and so completely may all traces of the distinctive initial lesions be obliterated, that unless some side-light be accidentally discovered it may be found impossible clinically to make any differential diagnosis between them.

We are all familiar with slight cases of some at least of those keratoses which are merely local manifestations of a general disease of the skin, such as eczema, psoriasis, syphilis, lichen planus, and those more fully described last year in connection with pityriasis rubra pilaris (Besnier, Brocq). It is in this class that the diagnosis may become especially difficult, when the most careful examination reveals nothing but an indeterminate thickening of the skin of the palms and soles.

At the present time I happen to have under treatment three cases of palmar and plantar keratoses in connection with lichen planus, each of which is interesting as presenting distinct and dissimilar appearances.

Lichen planus, No. 1.—The first is that of a lady, Miss F., æt. 38, who was sent to me by Mr. Malcolm Morris. He had treated her for a very profuse general attack of lichen planus which supervened during the convalescence from two consecutive ovarian operations. When I first saw her the disease had disappeared from everywhere except the hands and feet. On the dorsa of both extremities there were still numerous characteristic papules and pigment stains, and the palms and soles, together with the whole of the palmar and plantar surface of the digits, were completely covered with very thick epidermis. It was hard to the touch, and, unless kept well lubricated, soon became dry and harsh; in colour it was yellow and translucent, and on the surface the normal interpapillary furrows and ridges were well preserved, the creases, on the contrary, being partially obliterated.

In this case there could be no difficulty in diagnosis, for not only was the thickened skin bordered by typical planus papules, but its surface was seen to be studded with raised nodules which presented the characteristic flat surface and little central dell. The epithelium was too thick to allow the base of any of the papules to be seen, but sufficiently transparent to show that each nodule was growing from a papule lying deeply down beneath it. There was no apparent loss of sensation and no pain, but at times some itching.

The soles have been brought to almost their normal consistency by plasters, lotions, and ointments of salicylic acid and resorcin, but the hands, owing to the difficulty which the patient, who is an authoress, experiences in keeping the dressing on continuously, are still in only a half-healed condition. The use of a scalpel and file was necessary in order to remove the débris and allow the remedies to penetrate to the deeper layers, and alternations of plasters and emollient salves containing salicylic acid and resorcin (the only agents which have proved themselves to be of any service) were applied almost continually. Most effectual of all, however, have been compresses of weak resorcin lotion, covered with indiarubber gloves, alternated with the application of resorcin ointment, a method largely employed by Unna in the treatment of some eczemas and seborrhœic conditions.

No. 2.—The next case was that of a labourer, æt. 34, who came to the Hospital complaining of thickening of the soles, which prevented him from working on account of the pain caused by bringing the weight of the body to bear upon them. In this instance only those parts were thickened which were subjected to pressure from the boot, *i.e.*, the ball, the sharp edges of the toes, and the whole of the heel. The epithelium was very thick, but showed no papules or nodules; on the contrary, it was very even over its whole surface, with the exception of the sides of the heel, where it was exceedingly hard and rough, looking somewhat like a mass of dried gum tragacanth. Over the rest of the plantar area, the hollow of the soles, on which the foot did not rest in standing, the epithelium was of normal thickness, but the skin was of a deep dull purplish-red colour and bounded by a perfectly sharp line. This line passed in a slight arch from the great toe over the junction of the sole and instep to the heel, and was marked off from the normal skin beyond by a slightly raised dull red border, and a single fringe of broken epithelium. As this discoloured area was continuous on the sole with the horny mass, there was a strong presumption that the same condition underlay and was hidden by the thick horny covering of the rest of the sole.

According to the patient's account the affection had come on gradually and quite independently of any eruption of the skin, indeed he had never before to his knowledge suffered from any form of skin trouble; but as he was not very intelligent, this statement was not of much value. There was nothing at all characteristic, either in the keratosis itself or in the reddened area, of any of the better known morbid conditions of which mention has just been made; over the inner malleolus of one foot, however, a few old lichen planus papules were discovered, and near them one or two deeply pigmented maculæ. It is possible that the whole lesion may have been due to the same disease, but the connection is entirely one of supposition. The papules disappeared, as did in part the border of the red area, under the action of a salicylic tar varnish, but so mild a measure was naturally useless against the mass of horny substance. Mollin, which has often proved useful in apparently similar conditions, on account of the keratolytic action of its free caustic potash, failed to produce more than an emollient effect, but the application of a five per cent. salicylic plaster (Professor Pick's formula) soon took effect, and enabled him to go about his work with perfect freedom from pain. The remnants are being treated by resorcin compresses under a waterproof slipper.

No. 3.—In the third case an element of doubt is introduced as to the exact origin of the epidermic thickening. The patient is a lady, æt. 50. About twenty-four years ago she suffered from a general attack of lichen planus, which broke out the morning after experiencing a sudden chill from exposure to cold whilst overheated. Ten years later arsenic was administered in the hope of getting rid of the patches which still remained. The amount of the dose is uncertain, but as it was prescribed by one of the leading physicians in this town, it is not likely to have been at all excessive. After taking it for twelve months, the soles became much inflamed and were the seat of some itching. At the same time a spot on the left forefinger was attacked "in the same way," and on this spot there is still a patch of L. planus corneus. According to her account the thickened skin on the sole first formed in points which ran together to form large patches. At the present time there is a horny patch of the size of a florin on the outer side of the left thigh, and on the right lumbar region a sharply circumscribed raised surface the size of two palms, which shows the typical lilac colour and rough irregular horny covering of old lichen planus, with raised wart-like prominences at its edge.

The palms and soles have none of this rugged and irregular surface; on the contrary, they are perfectly even and show clearly the normal ridges and furrows of the skin, but the epithelium is several times its normal thickness. The palm feels like that of a hard-working labourer, but is free from any segs or callosities; the sole presents precisely the same appearance. The hand gives rise to no actual discomfort, but the feet, unless kept constantly lubricated, quickly become painful on walking. Neither palms nor soles show any sign of inflammation, and only occasionally is there a little itching.

The patient insists that this condition originated from the arsenic which she took twelve years ago, and asserts that the burning sensation which preceded and accompanied the development of the hyperkeratosis both ceased when the drug was suspended, and re-occurred when it was again administered at a later date. In order to test this I persuaded her to take a course of Fowler's solution (3 ♏), but she stopped it on her own account, saying that it had again produced the same symptoms. As she is very observant and not fanciful, the occurrence of the symptoms in connection with the taking of the drug must, I think, be allowed, but it is nevertheless doubtful if the condition of the epithelium is due to the action of the arsenic. The fact that the thickening occurred during an attack of the planus, a disease which is in itself capable of producing such conditions, that the undoubted patch of lichen appeared on the finger at the same time as the affection of the soles, and that there were no other symptoms of arsenical poisoning (conjunctivitis, gastric disturbance, pigmentation, peripheral neuritis with paralysis), are all against this view. The signs, too, do not correspond with those of the undoubtedly arsenical lesions described by Mr. Hutchinson, there are no cracks, nor pits, no psoriatic-like crusts, no discolouration, simply a hyperkeratosis limited to the palms and soles and digits. As any attempt at the eradication of so chronic a lesion would be of doubtful efficacy and very burdensome to the patient, the treatment has been confined to the use of various softening ointments, of which she prefers mollin. A convenient and effectual method of removing such horny accumulations from the palms and soles is certainly one of the great desiderata of dermatological practice.

Erythematous keratosis.—Another curious case of palmar and plantar keratosis recently came under my notice. The patient was a lady, Miss G., æt. 47, who was suffering chiefly from a chronic inflammatory condition of both hands. All the fingers and the outer edges of the palms for about an inch in breadth were swollen, inflamed and painful. The inflammation was not very acute, but the affected area was of a deep dusky red, hot and very tense to the feel. It was sharply bounded by an arched line passing from the thenar to the hypothenar eminences. On the dorsal surfaces, which are not so much affected, the inflammatory condition extended only to the base of the digits. The epithelial covering of the palmar surface of the affected area, with the exception of an edge of about a quarter of an inch in breadth, was hard, dry, and so distinctly thickened as to completely hide the subjacent red colour. There was a dull pain, and on account of the tenderness and thickness of the skin the movements were very much impeded. On the middle half of the soles there was no inflammation or other abnormality, but the epithelium of the heels, balls of the feet and toes was distinctly hypertrophic, so much so as to cause pain on walking. The nails of the fingers were striated and slightly pitted; in those of the toes there was well-marked hyperkeratosis subungualis.

The history of the origin of these lesions was curious. The patient had assisted at a somewhat prolonged operation, during which she was engaged in squeezing out sponges and dipping her hands constantly into carbolic lotion. She had experienced the usual numbness and tingling, seemingly in somewhat marked degree, but instead of this passing off as it usually does in a few hours, it had continued without abatement ever since. The circumscript inflammatory œdema had gradually supervened, and in six months had reached the condition in which I saw it on the occasion of her first visit. During the whole of the intervening time it had remained unaltered. After the operation she had nursed the patient for some months, and owing to the anxiety and to overwork she became debilitated and atonic. When I saw her she had recovered her previous state of health. The case reminded me of Besnier's Keratodermia symmetrica erythematosa, as it might appear in an early stage. All the same symptoms were present, but in slighter degree, and the affection was undoubtedly trophoneurotic. But the inflammatory œdema in itself prevented a satisfactory estimation of any independent hyperæsthesia or loss of power.

She was ordered to use continuously an ointment containing ichthyol and salicylic acid, and to take ichthyol capsules (5 ♏ thrice daily). Under this treatment she so rapidly improved that when I saw her again three weeks later the condition of the palms, which had lasted without change for eighteen months, had practically disappeared, leaving only a not very noticeable thickening of the skin behind. The soles had, she told me, never been inflamed; the skin had gradually thickened as the affection of the palms progressed. They were not nearly so much influenced by the treatment as were the palms, but the overgrowth is disappearing under stronger applications.*

Keratoma palmare.—A strikingly different condition is the hereditary Keratoma palmare (Unna), of which I have met with two instances in my hospital practice. In both the mothers and one or more of the children were affected, and in both there was a history of the affection in the maternal parents, that is, for three generations. In neither case was any information obtainable as to any more distant ancestors. In one family this hereditary misgrowth has been known to extend back as far as the fifth generation (Dale, quoted by Crocker).

I had the opportunity of watching the development in a baby, the daughter of one of these mothers. The palms were to all appearances perfectly normal so long as the child was in arms, and the characteristic signs, quite characteristic from the first, only began to appear when it was allowed to scramble on all-fours on the floor. It was the third child of this mother which was so affected, and she asserted that the others had commenced in precisely the same way, the thickening and irregularity of surface developed quickly as soon as the palms and soles were used for purposes of locomotion.

* Since writing these notes, I have seen the patient again, and find that with the exception of some slight thickening of the skin on the heels, the whole of the lesions have disappeared. Another case, presenting almost identical but still more marked symptoms, has since presented itself, and has been cured with still greater rapidity.

The over-development of the epithelium in all these cases was precisely similar. The thickening was intense, and covered the whole of the palmar and solar surfaces both of the hand and foot proper and of the digits, but at the border line between the dorsum and palm the skin became at once almost perfectly normal. The palms presented the aspect of a bird's-eye view over a region filled with mountains, deep valleys, and high table lands. The creases are not thickened or obliterated as in some other hyperkeratoses, but preserve almost their normal thinness, thus bringing out the thick ridges of horny matter in sharp contrast. Probably owing to lateral pressure these ridges tend to become wedge-shaped, a peculiarity which I have noticed well developed in all my six cases. This is well seen on the transverse strip of skin situated at the proximal extremity of the fingers; the thickened epidermis, being cut off above and below by a deep furrow, presents the appearance of a sharp-edged ring of horn surrounding each finger. On the flatter surfaces the ordinary interpapillary lines are well preserved, but in an exaggerated form.

Unna cured some of his cases by means of salicylic acid applied in the form of ether and collodion solutions, plaster and ointment; my patients, however, were unwilling to take the trouble necessary for any effectual treatment. The rugged and broken epidermis, being deeply infiltrated with dirt, presented a most repulsive appearance, but to this they had become accustomed, and as they suffered no actual pain they were unwilling to render themselves helpless for some weeks by the clog of continuous dressings.

The point which strikes the observer most in all these keratoses is their extraordinary symmetry, and the tendency for the same condition to attack both palms and soles. This circumstance does not, however, give sufficient grounds for presuming, in all such cases, on a primary central causation, for it is not uncommon to see local eczematous eruptions become acute and produce strikingly symmetrical outbreaks from one hand to the other, or from hands to feet, apparently by a specific reflex action. And again, essentially trophoneurotic affections (*e.g.*, "glossy skin") may originate from lesions to the nerves in their periphery or course. Some of these keratoses are to all appearances primarily central trophoneuroses, but in the great majority, the fact that they spread from one extremity to its fellow, or from hands to feet, or *vice versâ*, supports the theory of their reflex character.

PRÉCIS.

A DISCUSSION ON VACCINATION ERUPTIONS. In the Section of Dermatology, at the Annual Meeting of the British Medical Association, held in Birmingham, July, 1890. (*Brit. Med. Journ.*, November 29, 1890.)

The discussion was introduced by a paper on the subject by Mr. Malcolm Morris. After paying a well-deserved compliment to the President of the Section, Mr. Jonathan Hutchinson, for his fruitful labours in pathology, and having expressed his own firm belief in the value of vaccination, he proceeded to classify the various eruptions and diseases which may complicate the operation.

He separates them into two principal groups, as follows:

1. Eruptions due to pure vaccine inoculation.
2. Eruptions due to mixed infection, that is to say, to vaccine together with an additional virus.

"Under these two headings it is obvious that every kind of eruption can be included, and it will be now my endeavour to show in certain sub-divisions how this is possible."

PROPOSED CLASSIFICATION.

GROUP I.—*Eruptions due to pure vaccine inoculation.*

Division A. Secondary local inoculation of vaccine.

B. Eruptions following within the first three days before the development of vesicles.
Urticaria.
Erythema multiforme.
Vesicular and bullous eruptions.

C. Eruptions following after development of vesicles, due to absorption of virus.
1. { Roseola—like measles.
Erythema—like scarlet fever.
Purpura.
2. Generalized Vaccinia, "vaccine generalisée."

D. Eruptions appearing as sequelæ of vaccination: eczema, psoriasis, urticaria, etc.

GROUP II.—*Eruptions due to mixed inoculation.*

Division A. Introduced at time of vaccination.

Sub-division A. Producing local skin disease.
Contagious impetigo.
Erythema.

Sub-division B. Producing constitutional disease.
- Syphilis.
- Leprosy.
- Tuberculosis.

Division B. Introduced not at time of vaccination, but subsequently through the wound.
1. Erysipelas.
2. Cellulitis.
3. Furunculosis.
4. Gangrene.
5. Pyæmia.

He discusses each division in order. Under *Division* D, eczema and urticaria are spoken of as the commonest sequelæ of vaccination. A remarkable effect of vaccination is also mentioned, *i.e.*, that of causing the disappearance of an eczema occasionally.

Under Group II., Division A (*b*), the possibility of syphilis being accidentally communicated in the lymph, of course, is admitted. With regard to tuberculosis, the author has his doubts as to its ever having been transmitted by vaccination. The case is different with leprosy, and it is well to give in full what he says with regard to Daubler's observations, which appeared in the *Monatshefte für practische Dermatologie.* Mr. Morris says:—

" Though the subject is mentioned by authors in general terms, I have only been able to find two published cases. Daubler records the fact that leprosy has been conveyed by vaccination.* He says he has observed two cases on Robben Island, in which he can prove that leprosy was produced by no other means than through inoculation from man to man by vaccination. The observations of the surgeon who vaccinated them agreed perfectly with those of one of the patients. Both of the patients were vaccinated at the same time, by the same surgeon. The two patients had not been long in the institution, and the surgeon had been struck by the irregular appearances of the leprosy before he was aware of the re-vaccination having taken place. He told Daubler that he had made inquiries in that direction of the patients and others.

" The first case was that of a married woman, thirty-six years of age, who had never, previously to the date of the re-vaccination, shown any signs of leprosy, and in whose family no trace of it could be discovered to have existed. She had a child, who was now twelve years old, and healthy. She had been re-vaccinated in consequence of an epidemic of small-pox. During the two months following the operation she suffered from sensations of chills, increased thirst, passed a lessened quantity of urine, and complained of weakness. The vaccinated spots became swollen and brown during this time. The disease advanced on the arms with pigmentations, and in time, after distinct rigors, brown patches appeared on the cheeks and forehead. The disease became so bad, that two years later she was sent to the Lepra Hospital on Robben Island.

" The second case, aged 15, a half-caste, from the same place as the first patient, belonged to a family in which leprosy had never been previously known. She was said to have been perfectly well until re-vaccinated. During the first two months after the operation her symptoms resembled those of the other case, and dark prominent patches appeared upon the forehead and cheeks, and three months later leprosy was fully developed on the forehead. At the time of observation the disease had existed three and a half years.

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* Daubler über Lepra und deren kontagiosität. *Monatshefte für Pracktische Dermatologie*, 1 Feb., 1889, p. 123.

"The cases appear to have been carefully inquired into, and their description is accompanied by photographs."

With regard to eczema and other skin diseases following vaccination, Mr. Morris considers it impossible to lay down rules for their prevention, but much can be done in individual cases if they are treated at once on modern dermatological principles.

He concluded his paper with

RECOMMENDATIONS FOR PREVENTION OF VACCINAL ERUPTIONS.

1. That pure calf lymph should be used when possible.
2. That it is desirable that vaccination should be performed in children not later than six weeks after birth.
3. That strict antiseptic and protective treatment should be carried out immediately the vesicles have developed.
4. That the cases should be seen by the vaccinator till the wounds have healed.
5. That eczema, psoriasis, and other skin diseases should be treated immediately they appear.

He afterwards submitted the following questions for further elucidation:—

1. Is there such a disease as *vaccine generalisée*, due to blood infection, or are all secondary vesicles, following vaccination, produced by external inoculation?
2. Are the general evanescent eruptions, roseola, etc., following vaccination, caused by specific poison, or are they due to a foreign body in the blood acting mechanically (Behrend)?
3. Is it possible to transmit syphilis, during the latent period, by means of vaccination?
4. How is the occurrence of such apparently different skin affections as eczema, psoriasis, urticaria, pemphigus, etc., following vaccination, to be explained?
5. Is there any reason, so far as the protective influence of vaccination is concerned, why the vesicles should not be treated antiseptically, after the eighth day, so as to prevent the risk of accidental local inoculations?

Dr. Radcliffe Crocker thought that the vaccine vesicles should be antiseptically treated, as Mr. Morris had suggested, and considered that the constant application of corrosive sublimate wool, which was now in general use, would be efficient for the purpose. He gave very strong evidence in favour of what medical men know to be a fact, that the transmission of syphilis by means of vaccination must be a very rare event. Out of all the many thousands of patients passed under his observation he had not met with one single instance of such transmission of syphilis. His answers to Mr. Morris's five questions were the following:—

1. Vaccine generalisée was, he believed, produced by auto-inoculation at an early stage of development of the original vesicle.
2. The roseola was not due to a specific poison, but was analogous to that seen sometimes in variola, cholera, diphtheria, etc.
3. He had no experience to guide him, but would be disposed to say No.

4. He believed that only in those predisposed to the several affections would vaccination act as an exciting cause.

5. There is no reason, in his opinion.

Dr. Hugh Thomson of Glasgow, Mr. Campbell, Drs. Franklin, Robinson, Colcott Fox and Mr. Jonathan Hutchinson took part in the discussion. The last gentleman laid stress upon the fact, which we should remember, that syphilis has been conveyed from a vaccinifer who was not evidently syphilitic.

The discussion was worthy of the importance of the subject.

ALFRED EDDOWES.

[One of the greatest troubles following vaccination is a considerable swelling of the limb, with redness and tension of the skin, worst close to the edges of the vesicles, and gradually fading away into the normal skin in all directions. It is only occasionally that this can reasonably be mistaken for erysipelas, and only in rare instances, probably, does it prove fatal. The only cases which I have seen, either in my own practice or in that of other medical men, that proved alarming, have been of this nature. One of these cases was so nearly fatal, but appropriate treatment so rapidly followed by recovery, that I should like to take this opportunity of recording the main facts. The child came of a healthy father, but the mother was delicate and the only survivor of a very consumptive family. This child, her tenth, was said to be the weakest she had had. On the eighth day after vaccination, the vesicles, which appeared to have been injured, were surrounded by intense inflammation. During the following few days they became converted into large, deep ulcers with hard, infiltrated edges; swelling and redness extended to the hand, and upwards, over and round the shoulder, on to the chest. The child did not sleep, notwithstanding the use of sedatives. When the infant was in the gravest danger I, after several attempts, at last persuaded the parents to let me administer chloroform and treat the whole dirty, plush-like surface of the ulcers with fuming nitric acid. Other milder measures had utterly failed to check the mischief. The following night the child slept without sedatives, and in twenty-four hours was evidently safe, and the whole traces of the mischief passed off in a few days. Had I looked upon this case as one of phlegmonous erysipelas my patient's life would certainly have been lost. The cause was clearly a secondary infection, the essential elements of which remained localized upon the floor of the ulcers.—A. E.]

KOCH'S TREATMENT OF LUPUS.

IT is, of course, far too early to expect that any definite results should have been arrived at from the action of Koch's fluid, even in cases in which the field of disease lay so directly under the eye as it does in lupus. But it will be of interest to sum up briefly the experience of those who have had opportunities of watching the effects which have been so far produced.

It is quite unnecessary to recapitulate the general effects of the injections on the system; they have already been repeated so frequently in every medical journal, and unfortunately still more frequently in the daily press. But besides the fever, with the severe cerebral, cardiac, renal, anæmic, icteric and other disturbances which accompany or follow it, there have been developed several eruptions of essentially dissimilar character, some being of the usual angeioneurotic character, others being of a more destructive character. In most cases the eruption has been described as scarlatiniform; in others like a combination of roseola and measles; in others again all three forms appeared to be united. In one case, which presented this rash in marked degree, Thin[*] noted that on the abdomen it was scarlatiniform; on the chest and loins it became more punctiform, resembling a fine attack of measles, but without its prominence. Careful examination showed that the punctiform appearance was seen to be due to the injection of the lanugo hair follicles. Heron,[†] Cheyne,[‡] and others have noticed the outbreak of a papular itching rash, of no definite distribution; and odd bullæ have been seen on parts unaffected with disease. Lindner (*Deutsche Gesellschaft für offentl. Gesundheit*, Dec. 8, 1890)[§] describes one case in which, after the third injection, an exanthem appeared on the back, breast, neck, abdomen, and thighs, spreading downwards in a tongue shape on to the lower legs, which gave him the impression of an erysipelas bullosum. The skin was of a deep red colour, much infiltrated, and covered with big bladders filled with turbid serum, which broke, and left large ulcerations on the back. After subsequent injections the exanthem reappeared, but without infiltration, and without bullæ. The eruption looked erysipelatous, but as the child remained during the whole of the time perfectly free from fever, Lindner sets aside the possibility of its being true erysipelas. Like the fever and the diarrhœa, with which it was accompanied, it made on him the impression that it was due to some septic poison or poisons, which are, he believes, contained in varying quantities in the lymph. Together with the increase in the size of existing abscesses, and the opening up of healed fistulæ, he observed outbreaks of furuncular nodules, which burst and emptied necrotic plugs, an observation which has been repeated by other writers.

The local symptoms which follow the injection are fairly constant. After the lapse of a few hours (4 to 6; general fever 6½[‖]), the lupus regions, and they alone, become inflamed, swell considerably, and extremely painful, like erysipelas.[¶] "A zone of redness of varying breadth also surrounds the lupus area, and, in well defined cases, a whitish ring immediately within the red is distinctly traceable. This is often preceded—it may be for some hours—or accompanied by a subjective feeling of tension and burning. A slight exudation begins to ooze from the surface, the yellow drops of which run together, dry, and form crusts."[**] Where the skin is not broken, bullæ are formed, and the surface exudes. The crusts may fall in a few days (7–10, or even more), leaving a smooth red scar or a healing sore. But the exuding tissue may die before the secretions have time to accumulate, and instead of a scar a slough is formed, covered with a whitish-grey scab, which remains until the slough is thrown off.

At the end of the reaction, the ordinary desquamation takes place, which follows every dermatitis. Indeed, this has been in some cases the only local effect due to the injection.

Personal idiosyncracy evidently plays a very great part in determining the nature and intensity of the symptoms which follow the injection. It is quite clear that the extent of the lupus is not the determining factor in their severity, for Havas mentions that whereas in a patient in whom an enormous surface was covered with lupus, after the first injection the highest temperature reached was 102·4° F.; and after the second injection, 99·8° F., in another patient, who was far less extensively affected, the temperature after the first injection mounted up to 104·9° F.; after the second injection it rose to 105·08° F. The intensity of the reaction was greater when the temperature was higher. Some of the subsequently published cases show the same results very clear. If the dose be sufficiently great, a strong reaction can be apparently produced in any lupus patient; but there is already abundant evidence that Koch was mistaken in supposing that patients suffering from lupus could tolerate so much larger doses than those suffering from phthisis. An analysis of the published reports show that the 0·01 grm. of the one per cent. solution which he originally recommended is far too strong a dose to be justifiable without any previous experiment as to the patient's personal equation. Heron has been obliged to reduce it considerably owing to the intense constitutional symptoms (Tem. 105·7°, delirium, dyspnœa) which were set up. But the most striking case is one reported from Innsbruck. A girl, aged 17, who had been for a long time under treatment for lupus in the hospital, but was otherwise apparently healthy and well developed, was injected at 9 a.m. on December 3rd with 0·002 grm. of solution. She appeared stronger than five other patients who were treated at the same time with larger quantities, but her temperature rose rapidly to 106·7° F., and the respirations to 60, the pulse became imperceptible, coma supervened, and death took place with all the symptoms of heart paralysis at 9 p.m. on December 4th, 36 hours after the first injection. The obduction offered no solution of the cause of death, some ulcers in the internal organs, which had evidently reacted to the remedy like the lupus tissue, being found in progress of cicatrization. The liquid had been carefully prepared, and as the other five patients who were subjected to it reacted normally, it is evident that the result was due to a specific poisonous action, due to a hitherto unknown personal idiosyncrasy.

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[*] *Brit. Med. Journal*, Dec. 6. [†] *Ibid.*, Dec. 20. [‡] *Ibid.*, Dec. 13.

[§] *D. Medizinal Zeit.*

[‖] Prof. Pick, *Verein d. deutschenaertze in Prag (D. Med. Zeit.)*.

[¶] Havas, *Pester Med. Chir. Zeit.*, Dec. 7 *(D. Med. Zeit.)*.

[**] Philip, *Brit. Med. Jour.*, Dec. 13, 1890.

It is quite exceptional for so small a dose to produce such serious results, but as one milligram has been found to cause marked local reaction (swelling and inflammation of the lupus lesions, bullæ, exudation, and inflammation of neighbouring glands), that quantity would seem to be quite sufficiently large to commence with, even in an adult. Cornil* has limited his injections to this dose, and does not in future intend to increase it during the subsequent injections.

The diagnostic properties of the fluid are not of course in lupus so valuable as they are in forms of tuberculosis which are hidden from view; in fact, to any one well acquainted with the disease, they are quite unnecessary. Light is, however, at times thrown on the extent of the disease in the deeper layers of the corium, and several observers have noted that the injection brought to view hitherto unsuspected foci of the disease. Philip noticed that in many of the lupus cases swelling and redness occurred—perhaps in the extremities—where no lupus had hitherto been suspected, and that glands swelled and joints became painful which had previously given no sign of being diseased. But this need excite little wonder when the frequent association of this disease with tuberculous disease of the glands, joints and lungs is borne in mind. Tuberculosis of the lungs is, moreover, as the records of the post-mortem rooms show, one of the commonest of all diseases, and one which far more often heals spontaneously than leads to a fatal issue. It is not, then, surprising that some of the cases of lupus, as well as of other diseases, may have shown a pulmonary reaction where no previous phthisical symptoms had been noticed.

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* *Bulletin Medical.*, Dec. 10.

As regards the frequency of the dose, no definite plan has been followed. Koch suggested the interval of a week between the successive injections, but several experimenters have injected daily in increasing doses. In pure lupus the criterion is evidently the condition of the skin. The general symptoms subside much more quickly than the local, and the plan which has apparently been followed (although the details as to this point given in the clinical histories are not always clear) has been to wait for the subsidence of the swelling and pain, and, after the second injection, for the falling of the scab.

As to the after results, the reports are not at all clear or satisfactory. The surfaces which are presented when the scab falls off are described as "smooth scars," "freely desquamating surfaces" and "healthy granulating surfaces," and Dr. Philip speaks of cases as "to all intents and purposes cured after six to ten injections." As cases of lupus have been announced at Berlin as having been completely cured, it was natural that they should be subjected to the closest investigation by the dermatologists who went there specially to investigate the curative action of the injections on the tuberculoses of the skin. The fullest report which has as yet appeared is that by Dr. Thibierge of the St. Louis Hospital, Paris. Whilst fully acknowledging the enormous diagnostic importance of Koch's discovery and its influence on tubercular tissue, Dr. Thibierge says point blank that, as far as lupus is concerned, there was not one single case amongst all those which he could see in Berlin which had been *even apparently* cured by the injections. In every case which he had examined, some of which had been injected for two months, the little round apple-jelly or barley-sugar nodules in the corium were still present, and would prevent any experienced dermatologist from regarding the case as cured. Thus in one case of extensive lupus of the face which had undergone eleven injections, the last three being of the strength of two centigrams, and which was presented as cured by the assistants in the clinic because no further local reaction could be produced, nodules could be plainly seen when the superjacent hyperæmia was removed by stretching the skin between the fingers. Another case, a woman affected with diffused lupus of the face accompanied by enormous tumefaction and induration of the affected parts, who had been submitted to sixteen successive injections between October 11th and November 26th, presented no local or general reaction after the thirteenth injection, which was made November 19th, even though the doses in the last injections had been so high as 14, 20, 30 and 40 milligrams. But, in spite of this, a multitude of very evident lupus nodules could be still seen lying in the supple cicatricial tissue which had replaced the previous lesions.

The lupus cases in Berlin were unfortunately not treated in the dermatological, but all in the ordinary surgical clinics, and much of this misplaced enthusiasm was therefore due to dermatological inexperience. Whether the susceptibility returns after some time is, of course, as yet unknown, but if it does so within a comparatively short interval, the process might be repeated with advantage. For experimental purposes the cases have not hitherto been treated by surgical measures in conjunction with the injections, a co-operation which, as Dr. Koch himself predicted, may be found to be necessary. But accepting Koch's statement that the lymph destroys the tuberculous tissue but does not kill the bacilli, Cornil has already injected iodoform (1 gram) subcutaneously into the neighbourhood of the diseased parts, with the idea that the antiseptic may come into contact with the eliminated bacilli and prove effectual in killing them, and he is projecting a series of similar experiments with mercurial peptonate, sublimate and other bactericides. With the help of bodies of this class, and especially when some operation is resorted to in order to remove the mass of the diseased tissue, the results of the process may prove to be more favourable; but extraordinary and perfectly unique as is the power of the fluid to cause the shrivelling up and destruction of lupus tissue, up to the present time it seems to have failed completely to wipe out and completely remove the disease in one single well-authenticated case.

CASE OF ADDISON'S DISEASE. Richard Schmaltz (Dresden). (*Deutsch. Med. Wochenschr.*, No. 36.)

Report on a case of Addison's disease extending over a period of fully ten years. At the age of nineteen the patient, a clerk, had noticed a brownish discolouration of the skin of his hands and face, which rapidly increased, so that he soon looked "almost like a negro." At the same time he felt weak and easily tired. In 1888 Dr. Schmaltz found the whole surface of the skin of a pale brownish colour, the hands and face being much darker. The patient died in January, 1890, from influenza, in his twenty-ninth year. The *post-mortem* examination showed cicatrices in both apices of the lungs, without tuberculous deposit; the heart was exceedingly small, flaccid and atrophic; the muscular fibres being to a large extent in a condition of brown atrophy. Aorta and posterior coronary artery partially degenerated and fatty. Right kidney and adrenal gland wanting. Left adrenal changed to a cartilaginous tumour, partly caseous and calcified; tubercle bacilli not present. No mention is made of the condition of the sympathetic plexus. Dr. Schmaltz thinks this case would tend to prove that the loss of the adrenal glands is not so much causative of the discolouration of the skin as the irritation arising from a diseased condition of the gland.

Philippi.

THERAPEUTIC NOTES.

TREATMENT OF ACNE.

Brocq, in his recent work (*Traitement des Maladies de la Peau*, 1890), passes rapidly over the consideration of internal remedies for this malady, mentioning sulphur, common salt (30 grains a day) as given by Hardy, ichthyol (1–2 of distilled water, of which 15–50 drops are taken night and morning) as employed by Unna, arsenic—and the bromide of arsenic—and mercurials, &c. On the other hand he gives very many prescriptions for local applications; the following are a few of them, with directions :—

Wash twice daily with hot water, employing friction according to the sensitiveness of the affected part, and apply the following lotion :—

(1)	Hydrarg. perchlor. . . .	1 part
	Alcohol 90 per cent. . .	50–100 parts
	Rose water or distilled water .	150–100 „

(To make in all 250 parts.)

At first dilute with equal parts of hot water, gradually lessen the quantity of water, and, after a time, use the wash in its full strength.

Another formula, much employed, is as follows :—

(2)	Corrosive sublimate	1 part
	Tincture of benzoin	8 parts
	Emulsion of bitter almonds . .	480 „

M. and shake before use.

Or (3) the following formula (according to Hebra) for the *Oriental* lotion, held in great repute by the public :—

Bichloride of mercury . .	85 grammes
Distilled water	7·620 „
Whites of eggs	24
Juice of 8 lemons	
White sugar	230 grammes

The author also recommends the use of sal ammoniac with sublimate, which he generally prescribes thus :—

Sublimate	1 part
Ammonii chloridi . . .	2–5 parts
Alcohol 90 per cent. . . .	100 „
Distilled water	400 „

The sulphur lotion most commonly used in France for acne is this :—

Sulphur precipitate . . .	15–30 parts
Spirits of camphor . . .	30 parts
Rose water	100 „
Distilled water	150 „

Sig. Shake before use.

The lotion is painted on the affected parts with a camel-hair brush. After drying, there should remain a uniform layer of sulphur upon the skin. This is to be removed on the following morning with hot water and sulphur soap or black soap. The application should be repeated every night, and zinc pomade used during the day, if necessary. If the skin become inflamed the sulphur application must be discontinued, at any rate for a time, and soothing emollients employed instead.

The next formula is an example of his sulphur pomades :—

Naphthol β	1 part
Sulphur precipitate . . .	5 parts
Oxide of zinc powder . . .	2 „
Lanolin	5 „
Oil of sweet almonds . . .	7 „
Extract of violets . . .	Q. S.

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THE RELATIONSHIP OF COLLOID MILIUM (E. WAGNER), COLLOID DEGENERATION OF THE SKIN (BESNIER), AND HYDRADENOMA (DARIER-JACQUET), TO ONE ANOTHER.

BY L. PHILIPPSON, M.D. OF HAMBURG.

Two cases of rather unusual skin diseases, casually discovered in Dr. Unna's clinique whilst making an examination of the patients with regard to other disorders, have yielded the basis of the present observations, which aim at demonstrating the points of relationship among a number of skin affections hitherto considered to be quite discrete entities.

The first patient was a female aged twenty-five years, suffering from lichen syphiliticus. When demonstrating the case, Dr. Unna called our attention to some small nodules, situated on the lower eyelids, which he diagnosed as colloid milium. These nodules were distinguished from ordinary milium by their transparent appearance. The patient had never paid any attention to them, and only knew that they had existed as long as she could remember. To describe them more accurately, the hemispherical, about millet-sized nodules (two were on the right side, one on the left, the latter as large as a small pea) were located on the lower eye-lid in a position corresponding to the infraorbital arch. Their colour did not differ from that of the surrounding integument, and the epidermis of the affected parts was quite smooth; they felt tense and were imbedded in the cutis propria. They were characterised by their transparent appearance. For the purpose of comparison, Dr. Unna showed us a copy of the *Moulage* of a case of Dégénérescence colloide du derme, or Colloid milium, prepared by Baretta from the case described by Feulard and Balzer (*Annales de Dermat.* 1885). This *Moulage* (No. 1,019 Mus. Baretta) represented a much more advanced stage of the disorder. In close approximation, the nodules, varying in size from a millet to a lentil seed, are distributed symmetrically over the zygomatic portion of both cheeks and extend over the bridge of the nose to form a group over the left eye-brow. Some of the nodules are of the colour of the surrounding skin, a few of them are yellowish or white and shiny, one or two have the appearance of vesicles. These latter are evidently nothing else but transparent nodules in a more advanced stage, and were the same as those observed in our case.

Quite similar nodules were shown us by Dr. Unna in another patient, aged thirty-nine years, who was undergoing treatment for chronic eczema. They had the same form and the same transparent appearance as in the first case, and, similarly, they were but very few in number. The inner part of the right lower eye-lid presented one of the size of a millet-seed and one of the size of a pea, the corresponding portion of the left eye-lid exhibiting a single millet-sized nodule. Besides these lesions there existed another affection, which most particularly engaged our attention, but which was not clearly distinguishable before the eczema had been efficiently healed.

The anterior surface of the thorax, when seen at a distance, looked as if it were completely studded with pin-head-sized, dark little dots. They were most dense between the mamilla and the clavicle; then followed a group exhibiting considerable interspaces below the mamilla, and thence both towards the axillary region and the sides downwards to the edge of the ribs the number of the nodules gradually decreased. On examining the patient more accurately a small number was also found on the anterior and median aspect of the upper part of the arm and above the clavicle. Scattered amongst the lesser prominences a few millet-sized nodules were also observed. Several of them were surrounded by a red-coloured areola, and contained yellow pigment. To the touch they appeared as minute tuberous masses seated in the skin. The patient was unable to give any information concerning the origin or changes having possibly occurred in these bodies, as he had never before paid them the slightest attention. Dr. Unna diagnosed cystadenoma of the sweat glands, and referred to a case published by Darier under the name of Hydradenoma (*Annal. de Dermat.* 1887), and to the Syringo-Cystadenoma of Török (*Monatsh. f. prakt. Derm.* 1889, Bd. viii., p. 116).

For histological examination, a small piece of skin containing several nodules was excised: in the first case from the eye-lid, in the second from the region below the right mamilla. I was able by microscopical examination of the latter tubercles to confirm the correctness of the diagnosis, for, in general the same tissue changes were found here as have been described by Darier and Török in their respective cases. The result of my examination of the nodules of the first case, which had been diagnosed as Colloid Milium, was however not at all in accordance with what had been expected, but yielded the same histological conditions as were found in the second case. Two reports of microscopical examination of colloid degeneration of the skin have indeed been published by Balzer (*Annal. de Dermat.* 1879 and 1885), but both these descriptions seem to differ fundamentally from those of Darier and Török. On the other hand, the clinical features of the two disorders were so entirely dissimilar, that their identity could not have been thought of, not even in our second case, in which in the same individual colloid milium of the face was associated with cystadenoma of the chest.

But after having found so decidedly analogous histological conditions in these affections, hitherto considered to be entirely different from one another, the question to be solved was vastly simplified; if colloid milium and cystadenoma occur together in the same patient and have the same histological construction, it will at least be possible that all the cases described under the various designations of colloid milium, or colloid degeneration of the skin, or hydradenoma and cystadenoma, should be classed in one single group, in spite of all discrepancies in outward appearance and localisation. This much I can at least assert on the strength of my own histological researches, and of the various reports found in medical literature. I shall now attempt to adduce satisfactory proofs for my assertion.

First, I shall discuss the histological conditions in the nodules I examined, taking both cases together, as their microscopical construction was, one might say, quite the same. Then I shall consider the reports of other authors on the histology both of cystadenoma and of colloid milium; and finally I shall undertake to sketch the clinical picture of colloid milium, basing it on the histories of twelve different cases.

I prefer to retain the name of colloid milium for the affection under discussion, as it was employed by E. Wagner (*Arch. f. Heilk.* 1866) in the first publication on the subject; and besides, the denomination is a good expression of the anatomical condition, at least if our definition of the word milium be a more accurate one than is generally the case. As the subject will receive more attention a little farther on, I shall now content myself with remarking that it is best to reserve the word milium for the designation of cysts containing only cornified cells, as opposed to the veritable retention cyst, which contains fat, cholestearine, etc., besides cornified cells. In this we follow the example of Epstein and Robinson. This proposition accepted, the term milium might be generally applied to the lesions under discussion, and the colloid milium might be placed in opposition to the common cornified milium, the more so, as both probably owe their origin, as will be shown later on, to a similar cause, namely, to embryonic deposits in the cutis.

For the purpose of histological examination, some pieces of the skin were hardened in alcohol, others in Flemming's solution; the staining was performed chiefly with hæmatoxyline and saffranine. A series of sections was prepared from three of the nodules.

With a low power, cysts containing homogeneous resplendent masses and agglomerations of cells in the shape of roundish nests and tracts are seen distributed through the connective tissue. These tumour elements extend through the whole thickness of the cutis, the most superficial being separated from the surface epithelium only by a narrow zone of connective tissue, whilst those lying deepest down reach as far as the sebaceous glands and even to the coils. Furthermore, they are found not only in the interspaces between the glands and the hair follicles, but in some parts they approach them quite closely. Only in a single nodule from the first case were the neoplastic cells surrounded by dense connective tissue which was clearly distinguishable from the looser neighbouring connective tissue; in all the other nodules the cysts and cell agglomerations were imbedded in normal connective tissue. With a higher power, epithelial cells were found to be the chief constituent of the tumours, cubic cells with round nuclei and nucleoli. Joined together in twos and threes or more, these epithelial cells form the above-mentioned tracts extending through the bundles of connective tissue, or coalesce to form spherical nests or, degenerating, give rise to cysts, which exhibit healthy cells in the periphery, whilst those in the centre have undergone colloid degeneration. This degeneration, which is so highly characteristic in the microscopical picture, can be easily studied with regard to its origin and development.

Reaching from the peripheral cell layer of a cyst to its centre, we perceive, firstly, cubic cells with readily stained protoplasm and nuclei; then follow cells in which the protoplasm takes the stain (hæmatoxyline, saffranine) less readily, and which are in general larger; further, the nucleus swells and takes a paler colour, until finally, in the centre of the cyst we find more or less spherical, very scantily stained little lumps which here and there exhibit indications of nuclei and are divided from one another by delicate contours. (In these degenerating cells occasionally vacuoles are observed; these are probably due to the process of hardening, for they are also found in normal tissue.) Degenerate cells are present not only in the cysts themselves, but also here and there in the cell tracts and cell nests. In these parts, too, those situated in the centre are always the first to swell and to take stains less readily. This is the commencement of the formation of the cysts, and can easily be followed up from stage to stage.

The configuration of the cysts varies according to the part where the degeneration first sets in. Thus we have cysts lying isolated in connective tissue, cysts with one or more epithelial tracts proceeding from their periphery, cysts connected with one another by epithelial fibres, others which are so close together as to touch one another or even to communicate and form one large cyst, scanty remains of the partition being left to indicate the manner of their formation. The size of the cysts varies naturally considerably; where epithelial masses preponderate we find only smaller cysts, and where large cysts have formed, the epithelial masses which are left are but sparse.

It is of importance to mention that the largest cysts are lined with stratified, not cubical epithelial cells, the natural result of the pressure exercised by the colloid contents upon the cyst walls.

Mitoses exist in the epithelial tracts but in very small numbers, whereas in the exterior hair sheath in the same preparation they were fairly numerous, a sign of good consolidation.

As regards the tissues of the cutis itself in which the tumours were imbedded, I have already remarked that there was but one nodule which exhibited a condition of densification as compared with the surrounding connective tissue; all the other preparations were devoid of pathological changes.

The epidermis likewise, and also the hair follicles, sebaceous and convoluted glands, presented nothing abnormal.

The question now arose, whence the origin of the epithelial cells in the connective tissue. In order to solve this difficulty, series of sections were prepared from three of the tubercles and were carefully examined seriatim.

Although cysts and agglomerations of epithelial cells not seldom advanced very closely to the sebaceous glands, the hair follicles, the excretory ducts of the convolute glands, or to these organs themselves, sometimes approaching near enough to be in direct contact with them, still complete connection was nowhere to be found. But once only was the epidermis found to be actually connected with the tumour cells; as however this did not occur among the serial sections, it was impossible to determine anything with certainty beyond the fact that an epithelial tract extended from an interpapillary epithelial peg a certain distance into the connective tissue, and that it was found to communicate with a cyst filled with colloid contents.

No communication with any epithelial formation (except the conditions just described) having been discovered, it appeared probable that some indication might be detected in the grouping of the cell tracts and cell nests to one another, and with regard to the surrounding epithelial organs, from which we might possibly derive some assistance in our search after the origin of these epithelial cells.

However, this road did not help us on any further, for no regularity existed in this respect in the tissues. Some groups of tumour cells keep to the more superficial layers of the cutis, spreading out in plates, so that the hair follicles and ducts of the convolute glands perforate them, the glands being located at a short distance below them. On the other hand, there are nodules which spread more in a vertical direction, sometimes between the cutaneous accessory formation of the epidermis, sometimes surrounding a duct in its upward course from the gland to the orifice with cell nests and cysts. Now, considering the origin of the neoplastic cells cannot be attributed to the neighbouring epithelium, we shall not be wrong in referring it to embryonic germs, as will be explained presently.

As regards the connection of the epithelial tracts with one another, the series of sections showed that in general the epithelial bands lie isolated between the bundles of connective tissue fibres, and that accordingly the cysts are also sparse and discrete. Longer bands of epithelium, with cells more closely aggregated than those of the usual short tracts, are not frequent.

These epithelial formations are about of the breadth of coil ducts, but are not possessed of a lumen nor of a membrana limitans externa. I once observed a solid epithelial tract of this kind proceeding from a cyst filled with colloid masses, and situated just beneath the epidermis; through a number of sections it could be followed along its course obliquely downwards until it ended in the vicinity of epithelial nests. Another time a fairly long cord of epithelium, which sent forth side branches, was detected in the lower half of the cutis; two of the side branches terminated in epithelial nests in which the central cells had already undergone a process of degeneration. Still, such tracts of epithelium, which, by reason of their breadth and by the distribution of their cells are similar to coil ducts, must be considered merely as exceptions, compared to the shorter and irregularly shaped epithelial agglomerations.

Two exceptional occurrences are worth mentioning.

When examining the coil-ducts, one of them appeared particularly conspicuous on account of the remarkable course it took. At its orifice it was at first directed towards the acinus of a sebaceous gland, it then bent off and passing close by it, entered an interspace between two bundles of muscular fibres, after which it continued for a long distance (through some 20 sections) pretty parallel to the surface. In the last preparations transverse sections of the duct were visible, and finally its blind termination; here as well as in its whole length a clearly marked membrana limitans externa was present.

Cysts containing horny cells were but few in number, but in each nodule at least one, sometimes more, were detected. These cysts are likewise of various sizes; they lie close to the surface, being separated from the epidermis only by a layer of connective tissue, and are also unconnected with the convolute glands and the hair follicles. The cells of the cyst-wall correspond to those of the ordinary cysts: in the smaller ones they are cubical, in the larger, stratified. The layer of cells directly enclosing the horny cells contains granules, which by their position, shape and staining properties are evidently kerato-hyaline. The corneous cells themselves are arranged concentrically, and their nuclei possess a well-marked cavity.

Further, there are also some cysts, one-half of which contain horny cells with kerato-hyaline in the corresponding part of their cellular cyst-wall, while the other half is filled with a colloid mass surrounded by epithelium containing no kerato-hyaline. In a few cases a cyst with corneous cells had become connected with a cyst with colloid contents, as was evident from the remains of the perforated partition.

These histological details thus minutely described suffice to define the anatomical position of the six small, benign tumours. There can be no doubt that they must be classed either as adenomata or as benign epitheliomata. No connection could be discovered between the neoplastic elements and the glands; the cells of the tumours are not arranged according to the manner of glands, so the necessary characteristics of an adenoma are wanting here. To be sure, occasionally our preparations presented solid tracts of cells which offered some similarity to coil-ducts, but such conditions are so entirely exceptional that they can be of no weight in determining the nature of the tumours. Therefore I define colloid milium and the tumours described as hydradenoma (or Cystadenoma) as *benign epitheliomata with colloid degeneration*. The macroscopical appearance of these little tumours presents nothing characteristic, owing to their being imbedded in the cutis; they simply cause a slight protusion of the skin. But their appearance changes when the colloid degeneration has advanced to a later stage and where the skin is comparatively thin, as for example in the eye-lids. It is here that the colloid communicates the characteristic transparency to the nodules. As was seen from the clinical description, the growth of the neoplasm was very gradual, and this was also evident from the rarity of the mitoses.

The exterior appearance of the tubercles is readily explained, but the histological picture requires some words of explanation. The first and most important question in this respect is: whence the origin of the neoplastic cells?

A connection between the epithelial cells and any of the accessory cutaneous formations of the epidermis not being discoverable, the hypothesis promulgated by Török (*l.c.*) and Jacquet (*Monatsh. f. pract. Dermat.* 1889, *Vol. ix. Report of the Internat. Congr. f. Derm. in Paris, p.* 238) that such epithelial nests in the cutis are germs of epidermis, which have been abscinded during the period of formation, can very well be applied to our cases.

If we accept this theory, we must suppose that at the time when the germinal layer of the epidermis consisted of cubical, non-spinous cells, a certain number of epithelial cells were separated from the rest in consequence of some anomaly of growth, and was enclosed in connective tissue. In these places we now find them as isolated epithelial nests and bands.

This explanation of the origin of the tumour cells from the germinal layer of the stratum spinosum accounts also for the regular occurrence of cysts containing corneous cells, as was certainly observed in both of our cases. The normal course of cornification has taken place here, the peripheral cubical cells gradually passing over into the central cells that contain keratohyaline substance, and these finally changing to the corneous cells of the cystic contents. It is characteristic of this kind of cysts that in our preparations they were always in a subepithelial layer, and never advanced as far down as the deeper strata of the cutis.

This cornification of the epithelial tumour cells, although not so considerable as the principal transmutation of the cells into colloid masses, is not to be considered a casual complication of the morbid process, but on the contrary it is the outcome of their special nature. And in the same manner as these cysts with horny cells are identical as regards their histological structure with a certain kind of common milium, it is entirely probable that the genesis of both neoplasms is of the same nature, whence it follows that colloid milium and ordinary milium are closely related.

This assertion, it is true, has already been put forth by Wagner, and was the reason why he selected the denomination of milium. But his argument was, that in milium the tumours are formed through retention in the sebaceous glands, and that in these cases exceptionally the cells undergo colloid degeneration instead of the usual process of cornification. This definition of the ordinary milium is still generally accepted in the text-books on pathological anatomy and dermatology, but several authors have already expressed their disapprobation of this one-sided comprehension of the histological facts, and have adduced weighty reasons for so doing. In attributing to ordinary milium the same etiology as to colloid milium, I therefore ground my deductions on the presumption that neither of them arises through retention, but that they are modified epithelial germs which have been separated from the covering layer of epithelium.

As regards colloid milium, the grounds supporting this theory have been already set forth; for ordinary milium evidence will have now to be brought forward. I have myself had an opportunity some time ago of examining a number of millet-sized, yellowish-white nodules of the skin of the face which were faintly perceptible through the epidermis, and which were diagnosed as milium. Whereas the so-called milium of infants, and some kinds of milium of adults, is nothing else than an accumulation of sebum in the excretory duct of a sebaceous gland, or in the infundibulum of a hair-follicle, consisting as it does of minute drops of fat, fatty cells of the acinus of the gland, crystals of oleinic acid and cornified cells, all joined together to a more or less rounded mass; there are on the other hand also forms of milium which do not arise in pre-existing cavities, but which consist of concentrically arranged horny cells without the addition of fat, and lie free, merely imbedded in connective tissue, unconnected with sebaceous glands or hair follicles or the epithelial integument. This kind of milium, which, as regards its histological structure, entirely coincides with the above description of cysts containing horny cells, also cannot be shown to be derived from the surrounding tissue formations, and we are justified in attributing the origin of their epithelium to the germinal layer of the epidermis in the period of embryonic development. We may be all the more sure of the correctness of this view as proofs of the embryonic etiology of a certain kind of milium, the milium of the mucous membranes, have already been placed on record.

Epstein (*Zeitschr. f. Heilk. Prag.* 1880. Ueber Epithelperlen in der Mundhöhle neugeborener Kinder) has shown that milia of the median line of the hard palate, where they are exceedingly frequent, and also of the alveolar processes, chiefly of the superior maxilla, are not derived from glands, but that as regards genesis they are connected with the process of closure of the plates of the palate and with separation of the enamel germ from the tooth-mound. In the course of these processes the epithelium is inverted, and, at this stage, forms peg-shaped appendices of the covering epithelium. These latter are easily followed up in the course of their further development to separate epithelial nests and horny epithelial pearls. A somewhat different mode of development must naturally be presumed to have taken place in the case of those milia of the skin which are similar in structure to these epithelial nests. Robinson (*Manual of Dermatology,* 1885, p. 73) considers those milia which lie superficially, contain no fatty epithelium, and have no connection with sebaceous glands, to be due to "miscarried embryonic epithelium of a hair follicle or of the epidermis."

In this manner two-fold confirmation is afforded to the hypothesis advanced above, that the origin of the colloid milium, as also of the epithelial nests which have undergone a transmutation into horny cells, and likewise of the ordinary milium, is due to analogous causes. According to Török and Jacquet the epithelial masses which are found isolated in the connective tissue in cases of cystadenoma or epithelioma cysticum must have been separated from the epidermis at a very early period of development, and this premise is in accord with the observations of Epstein regarding the presence of microscopical milia consisting of horny cells in colloid milium and his views regarding the milium of the mucous membranes, and also with Robinson's researches on milium of the cutis, inasmuch as the latter kind of milium is composed of horny cells alone.

As the genesis of this kind of milium is well qualified to throw light on one side of the question of the origin of colloid milium, it is hoped that this short digression from our subject proper will not be considered superfluous.

In thus discussing the subject of horny milia, we have at the same time absolved all the conditions more frequently observed in our preparations of colloid milium; some unique exceptions have now to be considered, viz., the peg of epithelium ending in a cyst with colloid contents, the long excretory duct of a sebaceous gland, with its blind termination, and thirdly the solid duct-like bands of epithelium.

If these formations were more frequently present, they would be of much value as indications that the coil glands had undergone a process of transmutation; as, however, they only occurred in single instances, they cannot be considered as integral portions of the little tumours. Whereas in general the epithelial tracts are scattered through the connective tissue without any definite arrangement and unconnected with one another, there are on the other hand a few which by their breadth and the distribution of the cells are very similar to the excretory ducts of the coil glands and give one decidedly the impression of an adenoma. This condition agrees very well with the hypothesis of the origin of the tumour cells from the embryonic epithelial covering. While most of the miscarried epithelial germs are not capable of further development, but simply degenerate, this occasional cornification is an indication of a more normal development of the vital properties inherent in the cells of the germinal layer, which also show themselves in the tendency of some few epithelial germs to form duct-like structures, in accordance with their original predestination to become coil-glands. The aplasia of an excretory coil-duct, which was once observed, may be explained as a symptom of the disturbance which took place in the skin during the period of development. Of what nature the epithelial peg ending in a colloid cyst may have been, it is not possible to decide.

These nodules, therefore, which when located in the face were diagnosed as colloid milium, and when found on the trunk were designated as cystadenomata of the coil glands, are all more correctly described as *benign epitheliomata* which undergo colloid degeneration or, occasionally, a process of cornification. The first term would be very suitably applied to both disorders, if only we agree to distinguish the retention-cysts of the sebaceous glands from the cornified epithelial nests, to which group the milia of the mucous membrane also belong. In this case we should also have to distinguish the true retention-cyst of the sebaceous glands from the milia which arise out of epithelium lying isolated in the connective tissue. The species milium would be divided into two kinds, the milium forming horny cysts, and the milium forming colloid cysts, *i.e.*, ordinary milium (horny milium) and colloid milium.

The histological structure of our two cases teaches us that colloid milium may be present either in the face alone, or at the same time on other parts of the body (trunk and arms), and that the difference in clinical appearance is not borne out by anatomical facts. The varieties as regards localisation, size and colour of the nodules in the face and on the chest are therefore of secondary importance, and the tumours must be classed solely from an anatomical point of view, as we have endeavoured to do above.

We now turn to the second part of our task, which consists in comparing our observations with those of other authors. In so doing we shall have to take note not only of those researches dealing with tubercles similarly formed to ours anatomically, but which were seated only on the trunk, but we must also consider publications that have been written on cases that both clinically and anatomically are apparently very dissimilar to our own (dégénérescence colloide du derme of Besnier).

Two papers, one by Darier under the title of Hydradenoma, the other by Török with the denomination Syringo-cystadenoma, have been published on cases resembling our second one, only with the difference that the nodules were confined to the chest. Two other cases were presented by Jacquet and Quinquand at the Congress in Paris 1889, and were reported by Török (*l.c.*).

The Darier-Jacquet case was that of a young man aged twenty-six, in whom the nodules were reported to have first appeared eight years ago. The little tumours of the size of a pin's head to, at most, that of a pea cover the anterior surface of the thorax like the anterior half of a "cuirass" (in the same manner as with our patient), and besides there are a few of them also on the anterior inner aspect of the upper extremities. In the light of his microscopical examination, Darier denominates this disease as "épithéliome adénoïde ou plus brièvement hydradénome"; in other words, he considers the tumour to be derived from the pre-existing coil-glands, but hesitates to class it as a true adenoma as it is only "similar to an adenoma." Török has already expressed himself as opposed to the derivation of the tumour elements from the coil-glands, basing his dissent on Darier's own communication that a connection between the epithelial bands and the excretory ducts of the glands is not found as a rule. As our cases are quite in accord with Török's hypothesis of the embryonic origin of the tumour cells, a further discussion of Darier's views would be superfluous here. To a certain degree, however, Darier's observations are of importance for our cases inasmuch as they permit of a diagnosis only of an adenoma-like neoplasm and not of a true adenoma, and thus as good as entirely coincide with our histological description. The similarity between this case and ours is in fact such that even the rarer formations seen in our case have been observed by Darier in his also.

Whereas, namely, the distribution of the tumour cells is in general devoid of regularity, Darier (p. 320) finds a number of "epithelial tracts with more regularly arranged cells," and as in these epithelial tracts a lumen appears to be present in the centre of the tube (boyau) one is reminded of the appearance of a gland duct." Except the lumen, the presence of which moreover is not quite beyond all doubt, this is an accurate description of the solid, duct-like epithelial bands consisting of regularly arranged cells which were found a few times only in our preparations. The serial sections which Darier prepared yielded the same results as our own; a normal excretory duct of a coil-gland suddenly terminated in the vicinity of epithelial nests and cysts—a portion of a cylindrical tube without a cuticula entered into a cyst; besides, Darier found in a part of a coil-duct which lay within the interpapillary peg a few cells in a state of colloid degeneration, and finally a thin cord of cells diverging laterally before the passage of the duct into the epithelium (? epidermis).

Although all these unusual conditions are not adapted to verify the supposition of Darier that the neoplasm is an outcome of the coil-glands, they have been sufficiently explained, as far at least as their analogy with the results of our own microscopical examination goes, in the former paragraphs. Some few of these rarer conditions naturally demand a special explanation.

It is worthy of note that in this case the localisation of the tubercles on the trunk and arms was exactly the same as in our second case, and that a few of them were of the size of a pea.

The histological examination which Török published of his own case, which clinically perfectly agreed with ours, and the one just mentioned, is also quite similar in all the chief points to the description of Darier and my own. No connection with the coil-glands having been found, as has already been stated, Török considers the tumour cells to be derived from the embryonic epidermis. However, he adds, these epithelial germs are "failures of coil-gland formations" as the neoplasm is (according to him) a true adenoma or else a cystadenoma. To prove this assertion he has no other facts, however, than those which led Darier to form a diagnosis of adenoma-like epithelioma, and which induced me to say that the distribution of the tumour cells quite exceptionally approached the form of coil-ducts. Török himself says: "The somewhat broader cell tracts, in which I could discover no lumen, possess a double row of cells and are *sometimes* so similar to the excretory ducts of coil glands as to be readily confounded with them" (p. 120). The chief stress is laid on the "configuration of the tubes," by which epithelial bands with colloid contents are meant, which are supposed to be channels filled with colloid masses. But as no serial sections were made the microscopical appearance can only be taken as an indication of more or less rounded cysts, and if so, then complete agreement prevails between them and those observed by Darier and myself. In this case, however, the similarity of the neoplasm to coil-ducts is not so markedly present, and the derivation of the tumour cells from germs of coil-glands is not proven.

We have thus seen that Darier's conception of the origin of the neoplasm from fully developed coil glands, and Török's hypothesis of "abortive formations of coil glands," have no sufficient foundation; but no objection can be raised against Jacquet's opinion (*Monatsh. f. pract. Dermat.* 1889, vol. ix., p. 238. Report of the Intern. Cong. of Paris) that the miscarried embryonic epithelial germs are of an indifferent nature, as was already pointed out. As far as can be judged from the short report given (p. 238), his case, as the others, appears to coincide in the main with our own. He prefers to designate the disorder as Epithelioma cysticum benignum of the skin.

At the same Congress a second case of this affection was shown by Quinquaud (*l.c.*, p. 220), who prefers the term of "multiple epithelial, eruptive Celluloma," thus emphasizing the histological structure of the neoplasm. Quinquaud entirely accepts Jacquet's view regarding the origin and nature of the tumour cells.

Five cases have thus in all been published of a disease which is characterised clinically by the appearauce of pin-head, millet seed or pea-sized nodules, generally more darkly pigmented than the surrounding skin, hard to the feel, lying imbedded in the cutis and most frequently located on the anterior chest wall. Anatomically they must be classed as benign epitheliomata with colloid degeneration. Our case presents in addition the peculiarity of having nodules of a transparent appearance on the lower eye-lids, as described by Wagner under the appellation of Colloid Milium, and by Besnier as Dégénérescence colloide du Derme. My histological examination of such nodules proved their identity with those localised on the trunk and gave rise to the surmise that, in spite of their different appearance and localisation, the nodules which are confined to the face alone, and which had induced Wagner and Besnier to formulate a special kind of disorder, are of the same nature as those observed by Darier, Török, and others on the trunk of the patients, and which have also been classed as a disease *sui generis*, and that these together present a well marked morbid entity. Having acquired cognisance of the histological structure of these nodules, we could further understand how it happens that in far advanced colloid degeneration they become transparent and take on the appearance of vesicles, as described by Wagner, Besnier, and Feulard. The cases which they examined were patients between forty and fifty years of age, whereas all the others were younger persons.

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The cases of Besnier and Feulard were examined microscopically by Balzer; at first sight they would seem to contradict the conjecture just expressed, but I hope to be able to show that in these cases likewise the anatomical structure is allied to that of our report.

Wagner (*l. c.*) was the first to describe a case of colloid milium of the face. Clinically this case presents a far more advanced stage of development than ours do. The little nodules, of which some were larger than a millet-seed, were roundish, non-confluent and characterised by a peculiar resplendency. Some of them looked like vesicles, but were compact to the feel, and could not be made to burst by simple pressure. They were localised on the forehead, temples, the upper parts of the cheeks, and on the bridge of the nose.

A microscopical examination was not performed in Wagner's case; he believed the affection to be produced by a colloid degeneration of the contents of the sebaceous glands, and he places this affection in opposition to the horny and fatty changes of the cells in ordinary milium. This explanation has already been contested in the course of our paper. Here we will only add that the substance which Wagner obtained by pricking and compressing some of the nodules was shown by its appearance and reaction to be colloid.

The two cases of Besnier and Feulard, which were histologically examined by Balzer, follow next. In these, too, the nodules possessed a transparent, vesicular appearance, and their topographical distribution exactly agreed with that of Wagner's case. The anatomical examination led to the conclusion that the colloid degeneration had attacked, not the sebaceous glands, but the connective tissue, and hence Besnier gave the disorder the name of Dégénérescence colloide du Derme, rejecting the term colloid milium. As Balzer had examined both the case of Besnier and that of Feulard and declared them to be identical, we may discuss both descriptions together.

The epidermis and its appendices in the cutis were found to be normal, the colloid degeneration being confined mainly to the connective tissue and the blood vessels. To these latter Balzer attaches more importance in his report on the first case than in that on the second. Whereas there (p. 471) he writes: "In several parts the tunica externa of the vessels appears as a hyaline, resplendent broad band, but the endothelium seems to be intact"; and further on: "the colloid degeneration appears to have originated in the blood vessels;" in discussing the second case (p. 345) he feels induced to confess that "the pathogeny of this degeneration (or as he considers it more correctly expressed: infiltration) is difficult to understand, and it cannot in all cases have been caused simply and alone by disturbances in the blood vessels. Indeed most of the chief vessels are permeable, and the lesions are generally chiefly located in the interspaces between the hair follicles, which parts are just those most scantily supplied with blood vessels."

The various phases of the colloid degeneration of the connective tissue are not accurately described: "whereas its commencement is believed to be indicated by a varying faculty of staining with picrocarmine the end of the process always takes the form of colloid heaps (blocs)." If it were the connective tissue fibres that degenerate, then we should expect to find colloid in the shape of long stripes. Instead of this, Balzer speaks exclusively of the irregularly rounded (transverse) sections of the colloid bundles, around which the amorphous sheath and the normal flattened cells are seen (case I., p. 409: autour de la coupe irrégulièrement arrondie des faisceaux colloïdes on voit leugaîne amorphe et les cellules plates normales). It is still more difficult to understand what he says in his description of the colloid connective tissue in teased-out preparations: "Some of the colloid masses are surrounded by a very fine, amorphous covering, similar to that found round the normal fibres of connective tissue. Besides we observe on the surface of this covering and around the colloid masses a number of intact connective tissue cells, the nuclei of which are deeply stained with carmine, and of which a number have retained a certain amount of protoplasm with processes." (Case I., p. 468 . . . "une enveloppe amorphe, très fine, semblable à celle qui existe autour des faisceaux conjonctives normaux. De plus, à la surface de cette enveloppe et autour des masses colloïdes, on voit les cellules conjonctives intactes; leur noyau est franchement coloré en rouge par le carmin; quelques-unes conservent encore une certaine quantité de protoplasme avec des prolongements").

If "it is difficult to understand the pathogeny of this degeneration" by seeking their origin in the blood-vessels, as the latter are not occluded, the difficulty is not lessened by attributing it to the connective tissue. What is the reason then that we always obtain transverse and never longitudinal sections of the colloid bundles of connective fibres? How can the covering containing nucleated cells which is found surrounding the colloid connective tissue be explained? In such a case one would only expect to find a sheath, open at both ends. Some such doubts must have occurred to Balzer also, for in the second case he prefers to use the word infiltration in place of degeneration.

If we accept the hypothesis that in these places foreign cell elements are imbedded between the connective tissue fibres and have degenerated, thus forming roundish masses of colloid surrounded by healthy cells, then the process of "colloid degeneration of the cutis," which otherwise appears so "bizarre" (p. 342, *l.c.*), is at once comprehensible, and appears clearly analogous to former cases and to our own description. This supposition receives further confirmation from the fact that Balzer's cases and Wagner's colloid milium are clinically one and the same disorder. These cases merely present more advanced stages than our own, and for this reason the colloid degeneration appeared to be the principal point in the histological picture. Nevertheless, the veritable point of origin of the disease did not escape Balzer, for we find the following description of the cells which in all probability gave rise to the presence of colloid masses: "The degeneration attacks not only the connective tissue bundles, but also certain heaps of cells which are found lying scattered here and there in the vicinity of the coarser milium-like lumps. But the colloid appearance in these cells is less pronounced than in the connective tissue bundles." (La dégénéresence n'atteint pas seulement les faisceaux conjonctifs, mais aussi certains amas cellulaires disséminés çà et là dans le voisinage des gros blocs de milium. Toutefois l'aspect colloïde de ces cellules est moins franchement accusé que celui des faisceaux conjonctifs.)

Finally, we have to refer to three cases of colloid degeneration of the skin described by Lieving (*Brit. Med. Journ.* March 1886, p. 586), in which the diagnosis was only made from their clinical appearance, a microscopical examination not having been carried out. One of the patients was a young man, in whom the lesions were localised in the face and disappeared gradually after the lapse of a year, the other patient was a young woman, the third a girl 16 years of age. In this case the nodules were found not only in the face but also on the nape of the neck and on the upper part of the arms. Most of these growths underwent a metamorphosis not described by other authors, but on the neck there were one or two very perfectly developed specimens. The description given by Lieving agrees in other respects very well with the former ones: the tubercles vary in size from a pin's head to that of a split pea, they are somewhat prominent, yellowish, translucent as if containing fluid, and of solid or semi-solid consistency. The metamorphosis which they undergo consists in the formation of a central depression which constantly increases in size. Finally they become inflamed and, disappearing, leave a scar behind.

The chief characteristic of the nodules was, we see, present here also: "translucent as if containing fluid." Involution of the nodules has hitherto been observed only in this single case, and it remains to be decided whether this is merely a complication or whether it belongs to the regular course of the affection.

The cases described by Wagner, Besnier, Feulard-Balzer, and Lieving are of entirely the same nature as our first case, and our second case must be placed in the same category by reason of the nodules occurring on the upper eye-lids. Clinically they are all characterised by the size, appearance and localisation of the nodules, and microscopically they also agree with the cases examined by Balzer and myself. The points of discrepancy which exist in clinical respects between the nodules in the face and those on the trunk are of minor importance, for in Lieving's case tubercles were noted both on the face and on the neck and upper extremities, and in our case the nodules on the trunk which were histologically identical with those on the face were just those which by their great number gave the disease its characteristic appearance. Those cases in which the nodules that coincided anatomically with the above were confined to the trunk must therefore be classed under the denomination first introduced by Wagner into dermatological literature.

Thus we have before us reports of twelve cases of colloid milium, of which eight were examined microscopically.

With regard to the name colloid milium and the meaning which the word milium has in my conception as compared with the retention cyst of the sebaceous glands, or rather of the excretory duct of the coil glands (Sebaceous cyst), I beg once more to refer to the detailed explanation given at the commencement of this paper.

This understood, colloid milium may be defined in about the following terms:—

Colloid Milium.

The nodules are of the size of a pin's head or a millet seed or a pea; they are of the colour of the surrounding skin or rather darker, brownish red or yellowish. In the face they have generally a translucent appearance, which, when more pronounced, makes them look like vesicles. They are hard to the feel and are imbedded in the cutis.

In the face they are localised on the upper parts of the cheek, on the temples, the forehead and the lower eye-lids. On the trunk they occupy the anterior aspect of the chest from the clavicle to the arch of the ribs. On the neck and upper arms nodules were also found.

Colloid milium is observed in persons of all ages; they cause no subjective symptoms, and therefore often escape observation.

Anatomically they belong to the class of benign epitheliomata with colloid degeneration, and arise from embryonic epithelial germs in the cutis.

The diagnosis is based on their transparent or vesicular appearance, by which they are distinguished from ordinary milium with its opaque whitish or yellowish colour. Besides, their localisation on the upper half of the face and on the anterior surface of the chest—as Darier expresses it, in the shape of half a cuirass—seems to be characteristic. In all cases, however, the histological structure is alone decisive evidence of their nature.

LETTER FROM PARIS.

BY LOUIS WICKHAM,

Paris.

IX.

TREATMENT OF LUPUS BY KOCH'S METHOD AT THE ST. LOUIS HOSPITAL.

DURING the last two months all the visitors to St. Louis and every scientific force of the hospital have been directed towards the two wards where the lupus patients are being treated. In these wards are more than ninety patients, who are under or have been under Koch's treatment. Each day the hospital doctors meet officially, and study most closely the effects produced since the previous day by Koch's lymph. At the head of each patient's bed a large card is affixed, which is divided into numerous parts, in which notes are methodically taken down. During the period of fever which follows the injections, the temperature and pulse are taken every hour during the day, and every two hours at night, by the house-surgeon. The internal organs, lungs, heart, and kidneys are examined at each visit. The local condition is minutely observed, and all the varied changes are noted on the card. It is certain that this system of studying the cases so closely has impressed many doctors who have come to St. Louis to follow the treatment of cases, and are awaiting with lively interest the conclusion of the Commission. This would be, at the earliest, at the meeting in February; the commission wishing above all things to be on their guard against expressing a premature opinion. But already some general ideas have been arrived at, which M. Vidal has given in the following note, which he read at the meeting of the Société française de dermatologie et de syphiligraphie, on the 8th of January.

COMMISSION OF DOCTORS FOR THE ST. LOUIS HOSPITAL, COMPOSED OF MESSRS. E. VIDAL, E. BESNIER, A. FOURRIER, HALLOPEAU, QUINQUAND.

M. Vidal reading the report:—"Sirs, the Commission of Doctors for the St. Louis Hospital have decided to postpone till the next meeting the communication that ought to be made to-day to the Society, upon the results of the treatment of lupus and cutaneous tuberculosis by Koch's lymph. It is too soon to form conclusions, therefore we can only submit to you some preliminary observations with reference to the report which the Commission is preparing.

"Thirty-two cases have been injected. They have been placed in the Alibert and Devargie wards so as to be under collective observation, and to render the careful watching, which is necessary owing to the dangers of a new treatment, easier and more complete.

"The first inoculations were made on the 30th of November, 1890. The patients for the most part were injected from four to six times, at intervals of from four to eight days. In some cases, where the first injection was very trying, an interval of ten days was allowed. We have remarked that on increasing the number of injections, and making them every second or third day (as in Berlin), that the patient remained more exhausted, soon becoming anæmic; but on the other hand, the tendency to local reaction diminishes more rapidly, and becomes less and less active, and soon has no effect upon the local lesions, particularly in the lupus cases.

"Reserving for the meeting on the second Thursday in February the consideration of the changes produced in the lesions by the local reaction, we will now call your attention to the following points:—

"1st. As to the irregularity of the general action.

"2nd. The dangers of the method.

"3rd. As to the precautions to be taken to avoid these dangers, or at least to lessen them.

"I.—IRREGULARITY OF THE GENERAL REACTION.

"The reactions are far from being regular, though in a way schematic, and by Koch and the Berlin doctors considered characteristic. This irregularity is not surprising, as experienced clinical observers are accustomed to meeting with differences of action and effect from therapeutic agents, according to the individual, and therefore it is necessary to be careful in ordering or carrying out a treatment which is far from being without danger. The amount of local reaction is not always in accordance with the general reaction. The latter is sometimes very marked without any notable appearance of inflammation in the lupus lesions. This is what the Commission of Doctors of the St. Louis Hospital have remarked in most of the cases of lupus non-exedens. I myself noticed in a young girl, aged fourteen, treated in the Necker Hospital by Professor Guyon, that after three injections, the last consisting of three milligrams of lymph, an enormous nodule of myxomatous lupus remained perfectly intact, though a true characteristic type of tuberculous lupus. Notwithstanding a very marked general reaction, this nodule, larger than a sixpence, yellowish, soft, and standing above the level of the skin, had not been touched in the least; not even to the extent necessary to produce desquamation.

"In several cases we have seen an enormous reaction following an injection of a half-milligramme of lymph, even after several previous injections.

"One patient injected twice with one milligramme had, the first time, a temperature of 40°·6 C., the second time 40°·2 C., and a third injection, made twelve days after the second injection with half the dose, produced a greater reaction with a temperature of 40°·8 C.

"A woman injected three times, at intervals of ten days, with two milligrammes, experienced with the first two injections very little reaction, temperature scarcely above 40°·0 C, and during the forty-eight hours a little albuminuria; but after the third injection, same dose, very serious symptoms appeared, which, unless prompt attention had been given by the house-surgeon and two other assistants, might have proved fatal.

"Very extensive conjestion of the lungs, hæmaturia, generalised scarlatina-form rash, with vesicular pustules, and purulent bullæ; and on the next day tumefaction, with erysipelatous appearance of the face and scalp. These were the principal symptoms, which, accompanied by such severe suffering, made the patient beg of us not to continue the treatment.

"The duration of the febrile state is far from being the same in every subject. Generally the change is produced in the first twenty-four hours, but the temperature often rises in the afternoon of the second day, when it attains a higher maximum than on the first day after injection. This febrile disturbance is more manifest in some patients on the afternoon of the third and sixth day.

II.—The Dangers.

"Koch's lymph produces the effects of a very active irritant upon the whole system, causing congestion and inflammation, but so unequally, that it is difficult to see on which part it acts with most intensity, and which organs are more particularly influenced by it. This inequality exists not only in different individuals, but also in the same individual after any single inoculation. The parts which were previously the seat of some lesion, even other than tuberculosis, are more particularly congested. These are not the only parts attacked, as the most healthy intestines, where a careful examination does not reveal anything abnormal (as the lungs, the heart, and the spleen) can be strongly congested after an inoculation. Congestion of the bronchial tubes, and the base of the lungs is also frequent during the first two days. We have found several times symptoms of myocarditis and endocarditis. On the other hand cardialgia and pericardial symptoms, analogous to those observed in infectious diseases, have been noticed several times in these cases. Albuminuria has been found in several instances, and with three of them there was hæmaturia. Increased size of the spleen was manifest in several cases, but quickly subsided. The symptoms of renal congestion did not last longer than three or four days. The condition of general prostration was generally accompanied by pallor and rapid anæmia. Twice we saw the complication of a swelling resembling erysipelas enveloping the cheeks, forehead and parts of the scalp, the day after the injection, in some women afflicted with lupus, who had suffered previously from erysipelas of the face. In one case it lasted five, and in another six days. The blood did not contain any streptococci, and the efforts to procure a cultivation upon gelatine failed.

III.—PRECAUTIONS TO BE TAKEN TO AVOID DANGERS, OR AT LEAST TO LESSEN THEM.

"In order to carry out this idea, we have lessened the quantity of the first injections, and also made them at longer intervals, so as to give the patient time to recover strength before the next injection. We begin with a half milligram, and increase the injection half-a-milligram each time till the reaction raises the temperature to 39°. For the following injections we do not increase the dose if the temperature continue to reach 39°. An interval of from four to eight days is allowed between each injection.

"Thus, gentlemen, as I said before, later on will be given not only an account of the general work of the Commission of Doctors of the St. Louis Hospital, but a general and preliminary sketch.

"At the next Meeting, each Member of the Commission will give details from his own particular observations."

I will not anticipate anything that might be said, or that will be shown at the next meeting; moreover, I reserve for myself the pleasure of describing in a subsequent letter the main results obtained in the meantime, but I can even now announce to my readers that unfortunately it does not appear as if the final results would be very favourable. After watching the treatment for six weeks, I have not seen a single case cured, or even one that has an appearance of a complete cure.

Where the lupus has very much improved a close examination shows a number of lupus nodules under the cicatrices. The lupus nodules and ulcers which are often quickly healed by thermo-cautery or scarification, are just those which derive the greatest benefit from the effects of Koch's lymph. The ulcerations become cicatrised, the nodules are diminished, but the lupus elements remaining appear absolutely stubborn. I have seen new appearances of lupus nodules, notwithstanding treatment, on the borders of old lupus. In fact, generally speaking, up to the present time, the great majority of lupus cases so treated do not show much difference after the treatment. Some have been improved, others have continued to spread and increase. But I do not wish to say more at present, but refer my readers to my next letter.

We trust that the effects of the lymph during the month of January (second month of treatment) will have a more favourable result, and that the final decision of the Commission will be more satisfactory.

PRÉCIS.

FAVUS CAUSING SCLERODERMIA (Zur Ætologie der Sclerodermie). Dr. P. J. Eichhoff (Elberfeld). (*Archiv. f. Derm. u. Syphilis, Heft. 6*, 1890.)

The case which Dr. Eichhoff reports is of the greatest interest as helping to throw light on one of the possible causes of this usually very obscure neurosis. The patient, a man æt. 35, of very healthy personal and family history, commenced to suffer in 1879, the last year of his military service. His nails had for a long time been split and thickened, with occasional underlying ulcerations, and in addition to this the skin of the finger ends became red from time to time. This condition was associated, even in summer, with such an intense feeling of cold that the patient, who was a drummer, could hardly hold his drum-sticks. A little later the nail bed of the right thumb suppurated, the tissues became necrotic, part of the distal phalangeal bone was thrown off and the wound then quickly healed. This was followed by a similar process in the right middle finger; all the others suppurated beneath the nail bed, but some necrosed. Fearful attacks of pain supervened, shooting from the finger ends up the arms, and lasting day and night for a space of three or four weeks. The nails themselves became greatly disfigured by the subungual horny growths and cicatricial contractions, the fingers gradually wasted and became claw-like, the feeling of cold persisted, and the skin became livid whenever the temperature was at all low. After some time the feet underwent the same changes, and the face, and more especially the nose took on the typical, pinched, expressionless look and hard feel of sclerodermia. It was noticed that, in spite of the marble-like coldness and smoothness, the fingers and hands often sweated profusely, and in the intervals between the attacks of pain the sensation was quite normally acute. At the time of admission the disease had reached halfway up the hands, and had affected all the toes of both feet, the rest of the body, with the exception of the face, being normal. The finger nails, having furnished the first starting point of the disease, were carefully examined, and were then found to be completely permeated with the mycelium and spores of the Achorion Schönleinei fungus. The diagnosis was then formulated, *Onychomycosis favosa* and *consecutive sclerodermia partialis* (*manuum, pedum, faciei*).

A vigorous antiparasitic treatment was at once commenced (May 19). The nails were cut away, and the whole of the fingers wrapped in 10 per cent. pyrogallic acid ointment. This was renewed three times daily, after preliminary washing with 5 per cent. salicylic soft soap. The pain becoming unbearable after ten days, an intercurrent treatment with boracic ointment was employed, and as soon as all sores had healed up, the pyrogallic salve was recommenced.

July 6th, the patient was sent home with the ulcerations healed and the nails almost normal in form, colour, and consistency. The pain completely disappeared and had not recurred six months later. No recurrence of the fungous growth took place. But the most remarkable point is that the sclerodermia itself is disappearing, the fingers are becoming more moveable, the feeling of cold is not so marked, the colour and temperature are returning to the normal, and the furrows and creases of the skin can again be seen. Indeed, so great is the improvement that the patient returned to his work in a factory. To prevent relapse daily inunction with salicylic acid ointment was prescribed, and internally salicylate of soda pills.

It is, of course, too early to pronounce finally on the causal connection between these two very different diseases, but it is not *prima facie* improbable that a chronic irritation of ten years duration of so sensitive a mass of nerve endings as those of the digital extremities, might have produced, perhaps by some compressing scar, a neuritis ascendens with consecutive paralysis and atrophy of a whole extremity. Scars have certainly been previously noticed to have been the starting point of sclerodermic lesions.

In this case, however, Eichhoff is disposed to attribute the fierce attacks of pain and the spread of the disease rather to the long-continued and active inflammatory irritation caused by the fungus itself, than to the secondary effects of scars. He would therefore consider it as a distinct case of reflex trophoneurosis.

ON SOME SKIN DISEASES INDUCED BY INFLUENZA. PROFESSOR E. SCHWIMMER (Budapesth). *Wien. Med. Wochschr.*, 87.

Several authors have found the coccus of pneumonia, Friedlander's diplococcus, in the air passages, lungs and other organs of persons having died of influenza, and they are disposed to attribute to the presence of this micro-organism the various well-known symptoms of this wide-spread epidemic. As the parasite has been shown to be able to exist in so many various tissues, the lungs, the heart, brain, uterus, serous membranes, &c., the question naturally occurs whether it finds a habitat in the skin also, and what kinds of skin-diseases will be the result. Several cases of erythema have been reported from St. Petersburg and Paris, as complications of the *grippe* and in Berlin herpes, urticaria, &c., were noted. Professor Schwimmer has observed several kinds of herpes, chiefly H. labialis, but also two cases of H. iris and circinnatus. Further he describes erythemata of various intensity and character, including three cases of disseminate *erythema exsudativum multiforme*, and a rash of a scarlatiniform nature, with consecutive desquamation. Likewise he notes urticaria in two old persons, of the age respectively of sixty-five and sixty years, and also two patients with urticaria papulosa. Fourthly he mentions cases of an exanthema like measles as a consequence and real complication of grip, in the same manner as, for instance, Von Düring describes scarlatina eruptions in dengue fever in Constantinople.

All these skin diseases must be considered, not as caused by the localisation of the influenza germ in the skin, but as due to reflex action. Bouchard has indeed found micro-organisms in these cases, but we shall probably not be wrong if we class them as angioneuroses.

PHILIPPI.

A CASE OF LUPUS OF THE MUCOUS MEMBRANE OF THE NOSE.

Dr. Wagner. (*Revue de Laryngol. et d' Otolog.*, 1889.)

The notes, communicated by Dr. Wagner, refer to lupous growth in the mucous membrane of the nasal cavity, noteworthy by reason of its peculiar form, and important from the fact that its precise nature was demonstrated by examination under the microscope and by experimental inoculation.

The subject of this case, which occured under M. Leloir at the Hospital de St. Sauveur at Lille, was a young woman with lupus of impetiginous appearance at the base of the nose.

Dr. Wagner examined her, and found that she complained of difficulty in using her handkerchief. He discovered a somewhat copious secretion on both sides of the nasal cavity, especially on the right. This hardened into crusts of a greenish grey colour, not particularly glutinous, and without any appreciable smell, the periodical accumulation and evacuation of this secretion pointed to alternate obstruction and clearing of the passages. The turbinated bones were greatly diminished in size, their surface being pale, rough and studded with a certain number of exuberant granulations of a pale grey colour. These were most numerous on the lower right turbinated bone; there were two small ones on the same side of the septum, and a few on the lower left turbinated bone.

M. Wagner removed three of these small elevations by means of the galvanic ecraseur, and inoculated the peritonæum of a guinea pig with small portions of them, observing all the precautions insisted on by M. Leloir in the case of experimental inoculations of lupus. The following results were obtained. The guinea pig which was inoculated on the 20th of June 1888 died on the 28th November. A post-mortem examination showed that the spleen had trebled in size, and was covered with tubercles grouped into masses, round in form, and about the size of a 50-centime piece. The mesenteric ganglia were, one about the size of a nut, the other about the size of a pea. The liver was studded with tubercles and tubercular masses. The brachio-bronchial ganglia were very large and retrosternal ganglia all swollen. Hypodermic inoculation with a part of spleen was effected in a rabbit. The rabbit died on the 2nd January, and the post-mortem showed generalised tuberculosis.

(Note by M. Leloir.—At the same time a histological examination proved the lupus nature of the fragments of growth extirpated; we give below the second note on this subject communicated to the author by M. Leloir.)

The surface of the section when stained with picro-carmin, shows all the characteristics of ordinary *lupus non-exedens* of the atypic myxomatous class, as described by me at the Congrés de la Tuberculose in 1888: infiltration of the embryonic cells, a certain number of which show mucous degenerations; groups of cells aggregated into nodules, containing at their centre or circumference a number of fully developed cells, and presenting generally all the characteristics of lupous nodules; colloid degeneration of the inner walls of a certain number of vessels, pronounced atrophy of the mucous cells of the epidermis, particularly on a level with the subpapillary region. In one section out of twenty, coloured by the Ehrlich method, I found two characteristic tubercle bacilli.

P. Tavernier.

ELECTROLYSIS IN THE TREATMENT OF LUPUS VULGARIS. GEORGE THOMAS JACKSON. (*Journ. of Cutan. and Genito-Urin. Dis.*, November, 1890.)

Dr. Jackson, after speaking of the scant attention paid to this method in our text-books, describes the plan of applying the treatment adopted by Gärtner and Lustgarten, who brought the subject prominently before the profession in 1886, in a paper published in the *Wiener Medicin. Wochenschrift.* Jackson decided to treat cases by electrolysis alone, so as to judge fairly of its merits. His plan has been that of Gärtner and Lustgarten modified, and is as follows:—The electrode is made of zinc, set in a hard rubber button, the hard rubber projecting for a millimetre beyond the metal. The diameter of the plate is half an inch. This electrode is made to fit on to an ordinary sponge electrode handle. The needle he uses is an ordinary, rather coarse sewing-needle. The current is constant, of course, and the metallic electrode is attached to the negative pole. The sponge electrode is placed indifferently on the body, and the current is completed when the metallic electrode is in place. The strength of current employed was about seven milliampères, and it was allowed to pass for about seven minutes. The electrolytic action of the current seems to expend itself upon the diseased tissue alone. The sound skin is little, if at all, affected. Large patches are treated for a few times with the flat electrode, and remaining tubercles scattered over the patch are treated separately by the needle with a current of only about three milliampères.

The author claims the following advantages for this method of treatment:—

1. It is comparatively painless, no anæsthetic being necessary.
2. No loss of blood to cause patient dread.
3. Does not keep patient from business, or cause deformity; no unsightly plasters required.
4. The treatment goes to the root of the disease, to the bottom of the tubercles, with more exactness and less damage to surrounding skin than any other caustic or surgical method.
5. The scar left is smooth, and not unsightly.
6. Result as good as, if not better than, that by any previous method.

The author cannot speak yet as to the possibility of recurrence of the disease in the scar, but he hopes members of the profession will try the method, feeling sure that they will be pleased with it.

ALFRED EDDOWES.

NOTES ON PILOCARPINE IN DERMATOLOGY. KLOTZ. (*Journ. of Cutan. and Genito-Urin. Dis.*, November, 1890.)

Klotz, in an article giving his experience of this remedy, expresses surprise that it has not received more attention from dermatologists, considering its well known action upon the skin. He points out that serious ill-effects have only been produced by large doses, such as the injection of as much as the one-third of a grain. Pick has been in the habit of giving much less, half that dose, by the month, and has found the patient's health in no way injured after the use of the remedy continued for months. Klotz says he has used the muriate of pilocarpine in some cases of eczema, which he had under close observation, with great benefit. He employed the remedy hypodermally, 10 to 15 drops of a one-per-cent solution. He relates three cases, and concludes by saying: "In the light of more recent theories of the physiology of the secretion of the sweat, the use of pilocarpine in pachydermatous and xerodermatous conditions of the skin is strongly indicated, and deserves to be subjected to renewed trials, but in small doses and long continued, as recommended by Pick."

ALFRED EDDOWES.

ON THE TREATMENT OF ACUTE ECZEMA. SERGHEI E. ALEXINSKY. (*Ricker's Calendar for Russian Medical Men*, 1890, Vol. II., p. 18.)

Dr. Alexinsky, of Moscow, eulogises the following method of treatment of acute eczema, which is said to bring about a complete recovery in early cases within six days, and in more or less neglected in two or three weeks. Hebra's ointment should be thoroughly rubbed into the affected areas every morning and evening for two days, the part being kept covered with hygroscopic cotton-wool, and, if practicable, bandaged. On the third day a local tepid bath should be made, the surface carefully dried, and then powdered with the following mixture:—

℞. Zinci oxydati 1·25 gramme
Magisterii Bismuthi 1·85 (Subnitratis)
Amyli Oryzæ
Lycopodii ana 7·5.
M.J. pulv. Subtiliss D.S. To powder every morning and evening.

VALERIUS IDELSON (Berne).

A CASE OF XANTHOMA MULTIPLEX IN AN INFANT. MIKHAÏL A. TCHISTÏAKOFF. (*Bolnitchnaia Gazeta Botkiina*, No. 29, 1890, p. 780.)

Dr. Tchistiakoff, of St. Petersburg, contributes the following very interesting but exceedingly rare instance of multiple xanthelasma occurring in an infant and, possibly, having a congenital origin. When recently shown to the Russian Dermatological and Syphilographic Society, the patient, a boy, of a healthy artisan family, was about eleven months old, his whole body, except the scalp, eyelids, tip of the nose, and upper lip, was covered with glossy, rather dense, circular or oblong, flat patches, raised from one to one and a half millimètres above the cutaneous level, and varying inside from miliary papules to wens measuring from two to four centimètres in diameter. The lesions scattered over the upper half of the body were of a pure yellow colour, while those on the lower one had a reddish tint. The centre of the patches, however, was always somewhat paler than their peripheral portions, being then and there whitish, and, in fact, occasionally resembling keloid. Older papules looked paler in comparison with more recent ones. Under the influence of cold the exanthem became darker, assuming a reddish colouration. The cuticular lining of younger patches was quite smooth and altogether intact, while older lesions showed slight punctiform depressions. Some cutaneous regions were studded very thickly, others less so, the patches in the latter case presenting a larger size. A careful inspection discovered that the papules were grouped here in the shape of streaks, and there in a circular manner. Cutaneous sensibility was found to be distinctly increased; the infant appeared to experience some itching.

According to the parents' statements, the first " spots " had been noticed by them a couple of weeks after the child's birth, the lesions having appeared on the dorsum of the left foot and rapidly spread up and over the whole body. When brought to the author shortly afterwards, the infant (then one month old) had a healthy appearance, the only abnormality about it being a " red-brown rash with a violet tint," a " benign multiple connective tissue new-growth, characterised by abundant vascularisation and intense venous stasis. For several months, during which the child was shown to many practitioners, the diagnosis remained unsettled, a complete absence of any yellow tint leading to the supposition that the case was that of " lichen exudativus ruber," or " some uniform dry papular exanthem," or " multiple cutaneous fibromata," and so on. Later on, however, individual patches began to assume a yellow colour, so characteristic of xanthoma.

The author points out that international literature contains not more than a hundred cases of the affection, of which only two have been recorded by Russian observers (by Dr. Sperck, of St. Petersburg, and Professor Mansüroff, of Moscow). Many Russian cases, however, have remained unpublished. For instance, Professor A. G. Polotebnoff alone has observed as many as sixteen cases of xanthoma during the period of 1872–85; the total number of dermatological cases seen by him during the time amounting to 9,402.—The author believes that, as far as the patient's age is concerned, his case stands yet alone in literature. [Dr. G. T. Jackson has also recently published a case of xanthoma developing in a boy ot three months.—*Vide* the *British Journal of Dermatology*, August, 1890, p. 260 —*Reporter*.]

VALERIUS IDELSON (Berne).

MULTIPLE GANGRENE OF THE SKIN IN CHILDREN. DR. GALLOIS. (*Semaine médical*, from the *Wiener Med. Wochschr*, No. 85.)

The following case is described :—A little girl, three years of age, suffered from aphthous ulcerations of the lips, and when these had healed small vesicles appeared on the gluteal region, and rapidly passed into necrotic patches; similar pustules also developed shortly after on the vulva, in the axillary region, on the fingers, etc. Recovery was slow. Two different conditions are observed to precede multiple gangrene of the skin: (1.) Trauma of the cutis, grangrene ensuing at the site of the wound. 2. Non-ulcerous diseases which are incontinently followed by the necrotic process, the latter being evidently in these cases a principal factor of disease. This second type is found chiefly in delicate children, and can be transmitted by contagion. It is beyond doubt that it is produced by microbes, or rather by a number of micro-organisms, among which Demme's bacillus is the only one which hitherto we know for certain to be possessed of necrotic powers.

PHILIPPI.

THERAPEUTIC NOTES.

TREATMENT OF ALOPECIA.

Lassar and Grœtzer. (*Journ. d. Malad. Cut. et Syph., Oct., 1890.*)

1. Thoroughly wash the head for ten minutes with tar soap;
2. Wash with hot water and finish with cold; wipe and dry;
3. Rub in a solution of perchloride of mercury, 1 to 900 (equal parts of water, glycerine and Eau de Cologne);
4. Rub in a solution of Napthol, as follows:—

Napthol	1 part.
Absolute alcohol . . .	200 parts.

5. Anoint the scalp with a pomade containing:—

Acid. salicyl. . . .	2 parts.
Tinct. of Benzoin . .	10 „
Neat's Foot Oil . . .	100 „

The treatment should be carried out daily, and continued for six weeks or more.

AN OINTMENT FOR REMOVING THE DARK COLOUR FROM COMEDONES.

According to Leistokow, excellent results have been recently observed from the employment of peroxide of hydrogen for decolourising comedones. Unna prescribes it in the following formula:—

℞ Lanolin	10 parts.
Vaselin	20 „
Sol. Hydrog. peroxid.	20–40 „

If the comedones be complicated with papules and pustules, he recommends the employment of sulphur or sublimate for the removal of the latter.

(*Monatsh. f. pract. Dermat., Band XII. No. 1.*)

TREATMENT OF ALOPECIA AREATA.

Quinquand (*Sem. Médic.*, 17 August, 1890, Monatschefte f. pract. Dermat. Band XII. 1.) recommends the following treatment:—The hair is cut short, and the whole scalp is washed with soap, night and morning; after which the following solution is rubbed over the parts affected:—

Hydrarg. biniodid.	0,2
Hydrarg. perchlor.	1,0
Alcohol 90°/₀	40,0
Aquæ destill.	250,0

The head is again washed, and one of the following liniments is well rubbed in the liniments being alternately employed, each for eight days.

1. Balsam r. Fioravanti.	
Spirits of Camphor āā	100,0
Liq. Ammon.	6,0

2. Balsam r. Fioravanti.	
Spirits of Camph. āā	100,0
Tinct. pyrethri	6,0

Every sixteenth day the following is applied :—

Acidi Chysophan.	
Acidi Salicyl.	
Acidi Borici āā	2 parts.
Vaselin . .	100 parts.

LOTION AND OINTMENT FOR SYPHILITIC ULCERS.

PLUMERT. (*Journal d. Malad. Cut. et Syph.*)

Salicyl. of Mercury . . .	1 part
Carbonate of Potash . . .	1 „
Distilled Water	100 „
Ft. Sol.	

In the case of ulceration of syphilitic origin, this lotion is applied by means of wadding or compresses soaked in it.

The following ointment may be employed for the same purpose :—

Salicylate of Mercury. . .	1 part,
Vaseline	30 parts.

This ointment is also found to be efficacious in the treatment of eczema.

A PASTE FOR ECZEMA OF THE VULVA.

LASSUS. (*Journ. des Malad. Cutan. et Syph. 31 Oct., 1890.*)

Pulv. Acidi Salicyl. . .	1–2 parts.
Pulv. Zinc Oxid . . .	12½ „
Pulv. Amyli . . .	12½ „
Vaselini pur. . . .	25 „

This paste is spread over the skin for the treatment of general eczema (both papular and squamous), and the parts to which it has been applied are covered with some cotton material.

THE BRITISH

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MARCH, 1891.

LETTER FROM PARIS.

BY LOUIS WICKHAM,
Paris.

X.

FINAL CONCLUSIONS OF THE COMMISSION OF PHYSICIANS OF THE ST. LOUIS HOSPITAL ON THE SUBJECT OF THE TREATMENT OF CUTANEOUS TUBERCULOSIS, AND PARTICULARLY LUPUS, BY KOCH'S METHOD.

IN my last letter I gave the first part of the conclusions of Drs. Vidal, Besnier, Fournier, Hallopeau, Quinquaud, and Tenneson, assembled as a special commission since the 30th of November, 1890. Their report did not touch upon the question of the local results obtained, but was occupied chiefly in determining the influence of the lymph upon the general condition. The conclusions from this latter point of view were certainly not favourable: they observed, first, that in some cases the general reaction was so intensely alarming that death had been imminent; secondly, in eight cases congestion of the lungs resulted; thirdly, in two cases, hæmaturia; fourthly, in four cases, albuminuria; fifthly, in five or six cases, severe cardiac symptoms (violent palpitation, persistent systolic bruit at apex). They pointed out also great irregularity in the action of the lymph, and exposed all the dangers of the method.

It had to be proved whether the risk of submitting to such dangers was compensated by the excellence of the results obtained in the local condition; in a word, is the lupus cured, or even very slightly improved? This is the question which Dr. Besnier discussed on the 12th of February in a remarkable report, before a large assembly of the Dermatological Society.

The principal conclusions of this report are recorded in the table which Dr. Besnier has made on the treatment of thirty-eight cases.

I cannot better sum up his results than by laying before you the complete list of cases in tabular form, which through the kindness of Dr. Besnier I have been permitted to send in advance.

Cases.	Injections: Number, Date & Quantity.	The Main Phenomena of the Subsequent Fever.	Local Reaction.	Occasional Sequelæ.	Result of Treatment.
1.—F., æt 50. Lupus vulg. of the cheeks and chin, of 37 years' duration, with secondary epithelioma in the scar, of 1 year's duration. (*Under M. E. Vidal.*)	1 inj. of 0·002.	Violent reaction; great prostration; pulmonary congestion; hæmaturia; albuminuria lasting 7 days. Treat. discontinued, owing to serious injury to the general health.	Well marked, particularly on the surface of the epithelioma, which alone was ulcerated.	...	Nil.
2.—F., æt 25. Lupus vulg. of the cheeks and left ear, of 5 years' duration. Previously treated and cicatrised. (*Under M. E. Vidal.*)	2 inj. of 0·002 at ten days' interval.	Excess. reaction; T. 40°·6 C.; prostration; slight delirium. Severe chills for 4 hours; great dyspnœa; pulm. and splenic congestion; hæmaturia; albuminuria (8 days). Papular rash, etc. Treat. discontinued, owing to serious effects.	Intense, like erysipelas, extending over and beyond the disease on the healthy skin.	...	Nil.
3.—F., æt 21. Lupus vulg. of face (cheeks, nose, nostrils, and upper lip), for 6 years. Pretreated and cicatricial. (*Under MM. Vidal and Besnier.*)	From the 3rd Dec., 1890, to 26th Jan., 1891, eight inj. of ½ milligr. to 1¼. After the eighth inj. (1½ milligr.) the temp. rose to 39° C.	Considerable reaction; at the first inj. the temp. rose to 40°·7 C.; albuminuria after first two inj.; prostration and extreme discomfort.	Marked; like erysipelas till the fifth inj., but lessening and disappearing entirely at the eighth.	Anæmia. Loss of weight 6 kil. ·500.	Slight improvement. Tubercles visible throughout the whole extent of cicatrix. The intra-nasal lesions not cicatrised.

4.—F., æt 16. Lupus vulg. The centre of face (nose, nostrils, and upper lip). 6 years' standing. (*Under MM. Vidal and Besnier.*)	From the 4th Dec., 1890, to Jan. 26th, 1891, eleven inj. from ½ to 4 milligr.	Max. T. 40°·1 after the third inj. with 0·002. Extraordinary disturbance. Pain in epigastric region lasting 24 hours after one of the inj.; albuminuria after the eighth inj.	Slight, almost nothing after the seventh inj.	...	Slight decrease in the extent of diseased area. No cicatrisation of the intranasal lesions. Nodules evident throughout whole extent of the lupus.
5.—F., æt 29. Lupus vulg., disseminated. Nodular over the middle of face and nostrils. No previous treatment. 2 years' standing. Typical tubercular lupus. (*Under M.E. Besnier.*)	From Dec. 4th, 1890, to Jan. 26th, 1891, ten inj. from 2–5 milligr. Tolerance complete at ninth inj. At the tenth inj. the temp. went down to 36° C., and did not rise again about 37° C.	Max. T. 40° C. after the sixth inj. Notwithstanding soundness of the lungs, there occurred violent and irregular crises. Cong. of lungs. General rheumatism, lasting from 24 to 48 hours. These symp. only disappeared after the ninth inj.	Marked erysipelatoid local reaction; afterwards erythematous with running from the nose. Increase of the scabs already existing on some of the isolated nodules.	...	Almost nil. When the period of the postfebrile anæmia was passed the apparent improvement in the lupus disappeared, and the nodules have now assumed their former condition.
6.—F., æt 28. Lupus vulg. of the middle of face, in a condition of complete cicatrisation, and apparently cured by previous treat. by scarification and electr. cautery. Dis. was of 3 years' standing. (*Under MM. Vidal and Besnier.*)	From Dec. 8th, 1890, to 26th Jan., 1891, ten inj. of 0·001–0·006. No reaction after the ninth inj. (0·005).	Max. T. 39°·4 after the fourth inj. Reaction (general) very moderate. Rash. Headache.	Well marked.	Loss of weight, 5 kilos.	The lesions appear unchanged; possibly a little improved.

Cases.	Injections: Number, Date & Quantity.	The Main Phenomena of the Subsequent Fever.	Local Reaction.	Occasional Sequelæ.	Result of Treatment.
7.—F., æt 28. Lupus vulg. of nose, upper lip, cheeks, &c., in a condition of complete cicatrisation, and apparently cured by scarifications, but some nodules in the cicatrix or near it are still perceptible. (*Under M. E. Besnier.*)	From 8th Dec., 1890, to 26th Jan., 1891, eleven inj. (0·002–0·006). No reaction after ninth inj. with 3½ milligr.	Max. T. 40° C. after the eighth inj. Palpitation, dyspnœa, vomiting, scarlatiniform rash.	Well marked after the first injections, but rapidly ceased to occur.	Loss of weight, 2 kilos.	While the inject. were being carried on the tubercles, which had already shown themselves in the scar resulting from operation, continued to develop, just as fast as if they had not been treated.
8.—F., æt 50. Lupus vulg. of nose, septum, and upper lip, of 7 years' duration, small in extent, but relapsing and slowly destructive. (*Under M. E. Besnier.*)	From 3rd to 26th Jan., 1891, seven inj. of ½ to 2 milligr. Tolerance almost complete after the seventh inj. (0·002).	Max. T. 40° ·4 after fifth inj. with 1½ milligr. Very little general react. beyond ordinary febrile symptoms.	Decided; of erythematous character; discharge from nose; increase of the scaly concretions.	Unexpected revelation of a previously unknown pharyngeal tuberculosis. After each inj. posterior pharyngitis with ulceration. Loss of weight, 4 kilos.	Improvement characterised by greater freedom in nasal respiration, a cicatricial tendency manifest.
9.—F., æt 30. Lupus vulg. of the left forearm in numerous and florid foci, of 10 years' duration. (*Under M. A. Fournier.*)	From 12th Dec., 1890, to 10th Jan., 1891, five inj. of 0·002 to 0·004. No local reaction after the third inj.	Max. T. 39°. Intense scarlatiniform rash. After each of the inj. vomiting, severe headache, systolic bruit at the apex, &c.	The local reaction which had been very pronounced after the two first inj. became almost nil after the third, and quite so after the fourth inj., notwithstanding the persistence of intense malaise and other symptoms, which caused the patient to decline going on with the treatment.	...	Nil.

10.—F., æt 19. Lupus vulg. of nose, nostrils, and cheeks, nodular and ulcerating. In part cicatrised from previous treatment, but constantly breaking out afresh. 3 years' duration. (*Under M. A. Fournier.*)	From Dec. 12th, 1890, to Jan. 26th, 1891, eight inj. of 0·002 to 0·004. No reaction after eighth inj.	Max. T. 39°. Varying symptoms after each inj. Severe headache, vertigo, extreme sense of weariness, cramps in the calves. Scarlat. rash, pain in abdomen, attacks of coughing, pulm. congest. with sub-crepit. râles, sharp pain in left iliac fossa, violent earache. Purulent otorrhœa for 48 hours, which then disappeared entirely.	Sharp local reaction, swelling "more painful than the cauterisations"; nasal discharge; forming of scabs; peripheral erythema.	...	The improvement obtained by the first inoculations remains at a standstill. Nodules and scabs persist.
11.—M., æt 19. Tubercular dis. of sub-maxill., axillary and sub-clavicular glands. Suppurating tubercular "gummata" of skin. (*Under MM. Vidal and Besnier.*)	18th to 22nd Dec., 1890, two inj. (½ and 1 milligr.).	First inj. (½ milligr.). Max. T. 39°·3. No rash, very little malaise. Second inj. (0·001). Max. T. 38°·9. Sub-crepit. râles at both apices, particularly the left, where no abnormal sign had previously been made out.	The glands of the axillæ, which remained indolent after first inj., became painful after the second, and the large mass in the right axillæ became on the fifth day the site of extensive phlegmon, necessitating the transfer of the patient to a surgeon.	Phlegmon of axilla.	Nil.
12.—M., æt 11. Disseminated lupous tuberculosis, wart-like, occupying various parts of the lower extremities. Dis. of metat.-phalang. joint of great toe, left foot. Lesions of 2 years' duration. Right lung-apex doubtful. (*Under MM. Vidal and Besnier.*)	Nov. 30th, 1890, to Jan. 3rd, 1891, five inj. (0·001–0·002).	Max. T. 40°·2. General sympt. severe. Marked lung sympt., particularly in right lung; sharp pains in right shoulder and in metat.-phal. joint of great toe of right foot, where no signs previously existed. Pain and swelling of right shoulder; considerable faintness; rapid anæmia.	After having appeared to react to the first injs. the patches have in reality remained stationary.	...	Nil.

Cases.	Injections: Number, Date & Quantity.	The Main Phenomena of the Subsequent Fever.	Local Reaction.	Occasional Sequelæ.	Result of Treatment.
13. — M., æt 16. General nodular lupus of face. 7 years' duration. Was all cicatrised as result of treat. previously by galv. cautery, but still presented a number of nodules in the midst of the scar in the skin. (*Under MM. Vidal and Besnier.*)	December 5th, 1890, to Jan. 3rd, 1891, four inj. (1½–2 milligr.).	Max. T. 39°·8. Albuminuria 48 hours after first inj. Harsh respiration at both apices after each inj. Faintness after each reaction.	Local react. very moderate.	...	Nil.
14.—M., æt 21. Ulcerating lupus of nose, roof of palate. Laryngeal lupus. Lupus scattered over limbs. (*Under M.E. Besnier.*)	8th Dec., 1890, to 26th Jan., 1891, nine inj. (½–3½ milligr.).	Max. T. 39°·6. Dyspnœa; vomiting; papular rash; cough without stethoscopic signs; increase of a pre-existing mitral bruit.	Local react. moderate, of erythematous character; simultaneously around the nodules in the skin and mucous membranes.	Mitral bruit increased.	Nil in the cutaneous lesions; improvement of the laryngeal lesions.
15. — M., æt 24. Lupous tuberculosis, verrucous form, of back of right hand. (*Under M. E. Besnier.*)	1st December, 1890, to 10th Jan., 1891, six inj. (2–3 milligr.).	Max. T. 40°. General reaction delayed, but intense with considerable prostration. Some bronchial congest.; cough.	Local react. moderate each time. Increased cicatricial tendency. Reduction in extent of lesion.	Loss of weight, 5 kilos.	Apparent improvement, but persistence of lupous foci throughout the cicatrix.

16.—M., æt 30. Lupus vulg. of face for 22 years, partially cicatrised. Verrucous lupus of antero-inferior portion of the left forearm with encysted synovitis upon the surface of the flexor tendons. (*Under Mons. E. Besnier.*)	4th Dec., 1890, to 26th Jan., 1891, nine inj. (0·002–0·006). No react. after ninth inj.	Max. T. 38°·8. Slight general symptoms; tolerance practically, with exception of exacerbation of cardiac pains, to which patient was subject.	Almost none.	...	Nil.
17.—M., æt 23. Fibrous lupous tuberculosis in nodules recurring around a cicatrix of a healing centre. The nodules dating from 10 years of age. Purulent otorrhœa (left). (*Under Mons. E. Besnier.*)	4th to 20th Dec., 1890, four inj. (0·002 each). Temp. 40°·2 after the fourth inj.	Max. T. 40°·2. Severe general febrile disturbance, cough, palpitation, prostration.	Very moderate.	Anæmia and depression.	Condition stationary. Treatment discontinued on account of the severity of general symptoms and little local reaction.
18.—M., æt 24. Deeply ulcerating lupus of the palate and pharynx, of two years' duration. Lupus of the epiglottis. (*Under Mons. E. Besnier.*)	8th Dec., 1890, to 3rd Jan., 1891, four inj. (0·001–0·002). No tolerance; accumulative action. Max. T. 40°·8 after the fourth inj. (0·002).	Max. T. 40°·8. Intense general febrile symptoms, dyspnœa, palpitations, abdominal pain.	Moderate in the pharyngo-laryngeal lesions, without any interference with swallowing or mechanical obstruction to respiration.	Depression and anæmia, very marked.	Almost nil. Not considered wise to continue the injections because of the serious hyperpyrexial phenomena and little local effect.

Cases.	Injections: Number, Date & Quantity.	The Main Phenomena of the Subsequent Fever.	Local Reaction.	Occasional Sequelæ.	Result of Treatment.
19.—F., æt 26. Tubercular lupus of face (cheeks, eyelids and lower lip), not ulcerating. Isolated patches on the limbs. Crepitation at left apex. (*Under Mons. Hallopeau.*	10th Dec., 1890, to 10th Jan., 1891, six inj. (½–3½ milligr.).	Max. T. 40°·3. General reaction great. Intense headache.	Of erysipelatous character; redness and swelling.	Crepitation at left apex.	Lupus of the face looks pale. Nodules less prominent. There are some cicatricial islets. Patches on back and limbs apparently disappearing.
20.—F., æt 24. Tubercular lupus of face, not ulcerating, disseminated. (*Under Mons. Hallopeau.*)	12th Dec., 1890, to 10th Jan., 1891, six inj. (0·002–0·005).	Max. T. 40°. Slight general reaction, prostration, headaches.	Of mild erysipelatous character.	...	Lupus patches evidently improved. Scarcely any nodules perceptible.
21.—F., æt 24. Lupus vulg., non-ulcerating, extending over whole of left cheek. (*Under Mons. Hallopeau.*)	6th Dec., 1890, to 26th Jan., 1891, nine inj. (0·002-0·005). Tolerance after sixth inj.	Max. T. 39°·7. General react. fairly marked at first, then less. Prostration, pain in epigastric region. Scarlatiniform rash, intense and desquamating, after each inj.	Slight. Redness and swelling, followed by desquamation.	Cardiac bruit, probably anæmic.	Patches of lupus much improved. Nodules disappeared. A great number of cicatricial islets.
22.—F., æt 18. Ulcerated tubercular lupus, scattered over the face. Left apex doubtful. (*Under Mons. Hallopeau.*)	22nd Dec., 1890, to 10th Jan., 1891, four inj. (½-2 milligr.).	Max. T. 39°·6. Slight general react.; rash; gastralgia.	Fairly marked. Redness, swelling. Seropurulent discharge.	Cardiac bruit. Irregular pulse.	Lupus patches improved. Partly ulcerated, partly cicatrised.

23.—F., Tubercular lupus, non-ulcerating, in the middle of right cheek. (*Under Mons. Hallopeau.*)	12th Dec., 1890, to 10th Jan., 1891, five inj. (0·001–0·003). Tolerance after fifth inj	Max. T. 39°. Slight general react. Sense of weariness.	Slight; redness and swelling.	...	The lupus patch only paler.
24.—F., æt 59. Non-ulcerating tubercular lupus of right cheek. Some nodules on chin. (*Under Mons. Hallopeau.*)	10th Dec., 1890, to 3rd Jan., 1891, four inj. (1–1½ milligr.).	Max. T. 39°. General reaction slight. Scarlatiniform rash. Prostration.	Well marked; burning, redness; swelling.	...	Lupus patches perceptibly improved. Nodules much less prominent.
25.—M., æt 50. Lupus erythematosus of face, alæ nasi and cheeks. (*Under Mons. Hallopeau.*)	4th Dec., 1890, to 10th Jan., 1891, five inj. (¾–4 milligr.). Temp. 39° with the five inj. (¾ milligr.).	Max. T. 40°·9. General reactions very severe and prolonged, three days at least. Headache, pulmonary congestion, altered rhythm.	Slight.	Patient anæmic and very emaciated.	Lupus patches perhaps a little paler and a little less prominent (?).
26.—M., æt 30. Nodular lupus, multiple and multiform, of the lower extremities: elephantiasis, &c.; ulcerations, &c.; patches on left hypochondrium, wrist and right shoulder. (*Under Mons. Hallopeau.*)	4th Dec., 1890, to 19th Jan., 1891 (¼ to ½ milligr.), and the patient had still temp. of 39°·4 at the seventh inj. (¼ milligr.).	Max. T. 40°·7. Each reaction very marked; pulm. congestion; scarlatiniform rash; headache; prostration; with exacerbation on second day.	Very intense; sharp pains; redness; swelling; much discharge; periarthritis of wrist intense and painful.	Patient emaciated and very prostrated. It was impossible to continue. Formation of fungating tumours at the wrist, and large abscess on the left knee. The ulcerated lesions suppurated profusely, and were painful.	Non-ulcerated patches improved a little.

Cases.	Injections: Number, Date & Quantity.	The Main Phenomena of the Subsequent Fever.	Local Reaction.	Occasional Sequelæ.	Result of Treatment.
27.—M., æt 19. Tubercular lupus scattered on the face. No actual ulcerations. (*Under Mons. Hallopeau.*)	28th Nov., 1890, to 26th Jan., 1891, nine inj. (2–6¼ milligr.). Tolerance rapid.	Max. T. 39°·4. Mild general reaction; sweats; sense of fatigue; slight albuminuria.	Mild; redness; swelling; desquamation.	Soft bruit at apex.	Nodules less prominent and paler.
28.—M., æt 26. Ulcerating tubercular lupus. Nose, cheeks. (*Under Mons. Hallopeau.*)	17th Dec., 1890, to 26th Jan., 1891, eight inj. (1–5½ milligr.). Tolerance at the seventh inj.	Max. T. 39°·5. General react. mild. Pain in left hypochond. without enlargement of spleen.	Well marked. Redness; swelling; discharge.	Emaciation.	Partial improvement. Ulceration in progress of cicatrisation on the cheeks; tubercles persistent on the alæ nasi, and have rapidly developed since the cessation of the injections.
29.—M., æt 45. Lupus erythematosus of face, cheeks, ears, and dis. of cervical glands. (Case a subject of dispute as to diagnosis; erythem. by some, tuberculosis by others.) (*Under Mons. Hallopeau.*)	17th Dec., 1890, to 26th Jan., 1891, six inj. (¼ to 1 milligr.). At the sixth inj. (0·001) thermometer still attained 39°·4.	Max. T. 40°·8. General reaction intense. Prostration, vomiting, transient albuminuria, headache, &c.	Mild. After each injection a redness was produced at the site of the former injections.	Systolic bruit at apex.	Lupus patches less red, less indurated.
30.—M., æt 35. Lupus nodular, non-ulcerating, scattered on face, neck, and left elbow. (*Under Mons. Hallopeau.*)	5th Dec., 1890, to 10th Jan., 1891, five inj. (0·004–0·006).	Max. T. 39°·9. General reaction very mild. Exhaustion and diarrhœa.	Very mild. Redness, swelling.	...	Lupus patches little altered, a little less red (?).

31.—M., æt 21. Nodular lupus, ulcerating and vegetating on the face, dating from the age of 11. Dis. of cervical glands. Lupus recurring in spite of energetic kinds of treatment. (*Under Mons. Hallopeau.*)	21th Nov., 1890, to 26th Jan., 1891, eight inj. (½–2½ milligr.).	Max. T. 41°·3 (0·002). General reaction very violent, pulm. congestion, intestinal colic, endocarditis.	Very intense. Burning, redness, swelling, sero-purulent discharge, swelling of glands.	Endocarditis. Aortic and mitral insufficiency.	Lupus much improved; ulcerations in the way of cicatrising.
32.—M., æt 67. Suppurating tuberculous lymphangiectasis, dating from the age of 47; occupying the lower limbs; hypertrophy, ulcerations, sinuses, &c., &c. (*Under Mons. Hallopeau.*)	5th Dec., 1890, to 10th Jan., 1891, five inj. (½–1½ milligr.).	Max. T. 40°. General reaction very violent. Pulmonary congestion, albuminuria, &c.	Somewhat marked. Painful swelling of nodules.	Emaciation and prostration. Very large abscess of thigh (fever); moist crepitations at apex of right lung, where no lesion had previously been made out.	Decrease in size of limbs. Some sinuses closed; lesions somewhat improved.
33.—F., æt 18. Lupus vulg., partly cicatricial, of nose and upper lip, dating 6 years back. (*Under Mons. Tenneson.*)	10th Dec., 1890, to 26th Jan., 1891, nine inj. (½ to 6½ milligr.).	Max. T. 38°·8. General reaction mild, slight rash, headache, exhaustion, abnormal rhythm, palpitations.	Mild. Sense of burning; redness and slight swelling.	Treatment well borne.	Result almost nil.
34.—F., æt 13. Tuberculous lupus, non-ulcerating, in scattered patches; naso-buccal groove, angle of jaw, thyroid region, neck, ear, anterior portion of right axilla, region of right patella. (*Under Mons. Tenneson.*)	3rd Dec., 1890, to 26th Jan., 1891, ten inj. (0·001–0·007). Tolerance at sixth inj.	Max. T. 39°·6. General reaction mild each time. Pains in ears.	Mild.	...	The effect of the treatment was to isolate the lupus nodules, which are now sharply defined from the healthy skin. There is no longer redness or œdematous swelling round them.

Cases.	Injections: Number, Date & Quantity.	The Main Phenomena of the Subsequent Fever.	Local Reaction.	Occasional Sequelæ.	Result of Treatment.
35.—F., æt 17. Lupus vulg. of nose and upper lip, having commenced in the nasal cavity, in great part cicatricial with tubercular nodules. (*Under Mons. Tenneson.*)	3rd Dec., 1890, to 26th Jan., 1891, nine inj. (0·002–0·008). Tolerance reached at sixth inj.	Max. T. 39°·6. General reaction each time feeble and without incident.	Mild.	Treatment well borne.	Ten inj. progressively increased have brought about no remarkable local effect or other improvement.
36.—M., æt 15. Tubercular lupus vulg., disseminated. Left angle of mouth, ulcerating patch, vegetating, invading the mucous membrane. Vegetating patch in lumbar region, &c. (*Under Mons. Tenneson.*)	10th Dec., 1890, to 15th Jan., 1891, seven inj. (0·001–0·002).	Max. T. 39°·6. General phenomena variable; so serious as to cause discontinuance of treatment after seventh inj.	Rather severe. Burning heat, redness, swelling, discharge.	During the treatment loss of 3½ pounds weight. Falling off in general condition, which tends to disappear since the inj. were discontinued.	The vegetating portions have diminished somewhat, drier. Result very inferior to that which could be arrived at in the same time by ordinary treatment.
37.—M., æt 18. Lupus vulg. of middle of face. Apices of lungs suspected. (*Under Mons. Tenneson.*)	3rd to 10th Jan., 1891, three inj. (0·001–0·002).	T. after each inj. 40°; max. 40°·2. General symptoms severe. Albuminuria, subcrepitant râles at both apices.	Rather sharp.	...	Almost nil. Treatment discontinued owing to lung symptoms and general disturbance of health produced by each inj.
38.—M., æt 15. Lupus, tubercular ulcerating, of the nose and cavities of nostrils. (*Under Mons. Quinquaud.*)	30th Dec., 1890, to 19th Jan., 1891, four inj. (1 to 1½ milligr.).	Max. T. 40°·2. General symptoms intense, prostration, persistent lowering of blood pressure.	Rather sharp. Swelling, scabs, discharge.	Depression and anæmia with slow recovery.	Reduction in size, and attenuation of the lesions.

This table unfortunately does not appear to differ from the unfavourable results that I announced in my last letter. Not one case cured, not one case even nearly cured, and scarcely a visible improvement in any. On the contrary, twelve results *nil*, the lesions remaining as before, and eighteen very slightly improved. This is far from comparing well with statistics obtained by previous methods of treatment. After such results, is it legitimate to persevere in the use of the lymph, in spite of such risks and causing such serious symptoms, with even the danger of a fatal issue? (*Vide* Cases 1 and 2.) The report of the Commission answers these questions in the negative.

The treatment of cutaneous tuberculosis by Koch's method only secures very small results as compared with those obtained by the old treatment. At the same time these results vary a great deal, and no effects are certain. Under these conditions, and until more can be known with regard to the composition of the lymph, the method must for the present be abandoned from the wards, and reserved only for experiments in the laboratory. From to-day the doctors of St. Louis will discontinue the use of Koch's lymph, and revert to the old treatment by cauterization, scarification, or the mixed method, and, we must add, at the desire and to the great satisfaction of the patients themselves.

NOTE ON THE ECZEMA OF "BLEACHERS."

BY HENRY S. PURDON, M.D.

Physician, Belfast Hospital for Skin Diseases.

A TOURIST, passing by rail or otherwise, through the counties of Antrim or Down, in the vicinity of Belfast, is often struck by the appearance of our bleach-greens; the grass being covered for a considerable extent by webs of linen in the process of bleaching till a whiteness rivalling that of snow is produced. Before the linen is put out on the grass various chemical and other processes have to be gone through, chloride of lime being largely used as well as "vitrol." Boys and men, chiefly the latter, are employed. The life is not unhealthy, although rheumatism—owing to the constant wetting of the lower extremities—is frequently met with amongst the workers. However, it is with regard to a form of eczema occasionally observed in the men that I now call attention. The hands are the parts affected—in the first instance the palms. The disease is evidently local in its origin, and due to some irritating cause, which, after producing more or less erythematous redness in the first instance, gradually progresses, till fissures form in the natural lines and furrows, and from which fissures the peculiar secretion of eczema is poured out. Finally, more or less infiltration of affected part occurs, followed in chronic cases by a scaliness of cuticle often tedious and permanent. This form of eczema is known to dermatologists under the name of Eczema *rimosum* or *fendillé* of French authors. I have never noticed the nails to be affected or cast off, nor is the general health below par. Any one who has had an attack of eczema rimosum is liable to its returning again, on starting the same work, especially as it is difficult to completely eradicate the "bad habit" left even by one mild attack. The wearing of very strong india-rubber gloves is about the best method of prevention; or, if their expense be objected to, the leather gloves of gardeners, well smeared inside with litharge ointment, are a good substitute. It is interesting to note that nearly every occupation and art gives rise in those employed to some form of skin lesion, from the simple callosity to the more serious inflammations, or even new growths to be observed in various persons. As yet not much attention has been given to this wide and interesting field of study, which even in a medico-legal aspect might be useful in cases of doubtful identity, or where the appearances might be mistaken for marks of external violence.

THE NEW YORK DERMATOLOGICAL SOCIETY.

At the 200th meeting of the New York Dermatological Society, Dr. Seriseur presented a case of Pityriasis rubra, first seen by him July 14th, 1890. The patient, a man, 58 years of age, had noticed in the previous November redness and swelling of both feet. This condition shortly extended to the body. When seen, the entire surface was deep red, and an abundant and continuous exfoliation of epidermis took place in the form of flaky, bran-like, whitish scales. The skin underneath these latter was red, shiny and non-infiltrated. The skin feels too small for the patient, there is slight ectropion of the lower lids, the legs are somewhat œdematous. The nails are thickened and brittle, and partly lifted up from their base. The hair is thin and without normal lustre. The inguinal glands are the size of hen's eggs, the cubital as large as walnuts, the axillary, cervical and occipital glands enlarged. No pain on pressure, and no symptoms of inflammation. There is moderate itching. The man always feels chilly, no sugar or albumin in the urine, the spleen and liver not enlarged, the temperature normal. Treatment appears to have little influence on the disease.

Dr. Sherwell considered the case one of Pityriasis rubra, but could not agree with Hebra that the disease was incurable. He had presented before the Society a young girl, who had suffered from the process for two or three years. She had completely recovered. He treated his cases with linseed oil externally and internally.

Dr. Fox stated that there were cases of Dermatitis exfoliativa which might recover in a few months, and others in which atrophy of the skin resulted, and death was the end. In early stages, he did not think a diagnosis could be made between the acute and chronic forms. The first case he had ever reported got well under acetate of potash. Another had likewise been cured by alkaline treatment.

Dr. Morrow did not think that there were any well-grounded distinctions between

Pityriasis rubra and Dermatitis exfoliativa, except the element of chronicity. The majority of cases of the latter lost, after a time, their pronounced scaliness, and presented a dry, atrophic skin.

A most interesting case of a bullous eruption of the hand was shown by Dr. Fuller. Female, age 19, single. She has been subject to fits since the age of five they having developed after large doses of quinia for malaria. The menses appeared at the age of 17, and have been regular but scanty. Their cessation is followed by pain in the pelvis, and also in the portion of the body from which vicarious menstruation takes place. At the age of 15, the right hand, but especially the index-finger, became swollen and painful, and a hæmorrhagic discharge took place through three or four small openings on the palmar surfaces of the tip of the finger. The amount was about ℥iv., the orifices opening and closing at times during several days. This discharge recurred until four months ago, when soreness extended along right arm, and across and above both breasts, where four patches about two inches in diameter became congested, and from each slight hæmorrhage occurred. An amount equal to one pint flowed also from an opening in the right axilla. Two such hæmorrhages have occurred from the chest and three from the axilla. The last time, however, the discharge has taken place again from small openings on the right index-finger.

The bullous eruption is spread extensively over the palmar and dorsal surface of the hand, and more or less over the fingers. At one time the patient had had hæmaturia, but this has been completely cured by treatment.

Dr. Morrow considered the contractions of the fingers present in the case as hysterical.

Dr. Lustgarten regarded the case as one of hysteria with skin symptoms. It recalled to him those reported by Kraft-Ebing, in which cutaneous eruptions had been produced by suggestion and auto-suggestion.

G. T. Elliot, M.D. (New York).

PRECIS.

REPORT ON LEPROSY FROM THE TRINIDAD LEPROSY ASYLUM FOR 1889. DR. BEAVAN RAKE. 1890.

The excellent report by the superintendent of the Trinidad Asylum is replete with interesting information, much of which is the result of the author's original investigations. The low death-rate which he has to record, namely, 7·4 per cent., is partly due, he thinks, to the practice of immediately and deeply incising all sinuses and ulcers, which does much towards preventing the otherwise frequent development of fatal gangrene. Of the sixteen patients who died, seven showed kidney disease, and in two of these there was tuberculosis of the viscera. In opposition to Leloir, who asserts that anæsthetic lepers hardly ever died from phthisis, Rake finds that phthisis is very common in anæsthetic as well as in the other two forms of leprosy.

As regards the vexed subject of contagion, the essential question is narrowed down to this. Can a healthy person more readily derive the bacillus from an infected human being, or from food, air, water, or some host which contains the bacillus or its spores? It is possible that there may be some as yet unknown intermediate sporular stage which might explain the difficulty or impossibility of the direct communication of the disease from one subject to another. He is not prepared to admit that leprosy is contagious in the ordinary sense of the word, though it might possibly be transmitted by grafting (as in carcinoma); but segregation, and segregation of the most stringent kind, under prison laws and discipline, is absolutely necessary in order to lessen the number of infected foci.

To help to solve the obvious question as to the possible contagion by earth and food, Rake examined carefully by the microscope the surface soil from graves of lepers, from the grave of a tuberculous patient, and from his own garden, a mile away from the asylum. In all alike be found large roots, probably putrefactive organisms, but no leprosy bacilli. The favourite food of the negroes and coolies, salt pork, salt fish, and "pigeon-peas," were also stained and examined, but with a like negative result, and cultivation experiments with all these different substances failed to show any leprosy bacilli. The question of an intermediate spore stage is therefore still left open.

Cultivations were attempted chiefly on agar and serum, and on solidified hydrocele fluid, by inoculation with pieces of viscera; but even at the second and third generation they showed no development, or only a white or yellow oily growth, which he has previously described. The frequently observed absence of leprosy bacilli in the brain was further borne out by the negative results of the implantation of pieces of the cerebral hemispheres in nutrient media. The inoculation of living animals was not more successful. Two cats lived respectively 4½ and 5½ years after inoculation without developing any signs, and in the former none were discoverable after death: the latter is presumably still living. Pigs and rabbits which have been inoculated show no signs, and in the case of one rabbit which died fourteen days after the inoculation, the excised tubercle was found unchanged, but surrounded by lymph. Guinea pigs inoculated from leprous tubercle and femoral glands have showed no signs of infection. No human inoculation of condemned criminals has as yet been practiced.

Danielsen and Boeck noticed that no tuberculation developed in the cicatrices following attacks of variola in leprous patients, and Rake has made the same observation in reference to vaccination, no trace of tuberculation following the healing of four good pocks on the arm of a young negress suffering from mixed leprosy. The presence of other microbic affections, however, in conjunction with leprosy seems in some cases to have an antagonistic influence on the leprosy bacillus, for, like Leloir, Rake has noticed that erysipelas retards the disease, and cutaneous tubercles tend to disappear when the patient is attacked with phthisis. It being not yet certain that the bacillus lepræ can be grown in artificial media, protective or antagonistic inoculation is, perhaps, premature; but as it was possible that cultures from fragments of tubercles and viscera might contain either spores or some secretion of the bacillus, injections were made with such cultures in cases of anæsthetic leprosy, tubercular growth, and in leprotic fever, with the view of a possible effect in impeding the progress of the disease. Beyond, however, a passing ulceration of some tubercles no effects were observed.

In respect of treatment, the favourable effects of *chaulmoogra oil* are noted. These are generally, 1. increase of perspiration; 2, decrease of tubercles; 3, improved appetite and sense of well-being; 4, increase of sensation; 5, increased suppleness of skin and lessening of pain in joints. The author does not himself believe that the oil has much effect on the disease, but as the patients ask for and persist for months or years in the use of so nauseous a drug, which they have to drink pure, and not in capsules, he concludes that they must derive some corresponding advantage from its use. As a local application he finds *creolin* of great service. It has great advantages over the usual carbolic acid lotions in removing the smell of gangrene, in not causing poisoning by absorption, in not roughening the hands, and in being about one-half the price. It forms a useful treatment for the eczema which so frequently complicates leprosy, and when used pure to ulcerating tubercles and exuberant granulations, it is a useful caustic. From its internal administration he could observe no definite results.

The favourable results of stretching the sciatic and external popliteal nerves for the *treatment of perforating ulcer*, which the author previously reported, have been still further confirmed. But he now recommends a simpler plan, which is often quite efficacious. A bistoury is passed through from the ulcer on the sole of the foot to the dorsum, the whole of the tissues being cut through and the bistoury brought out between the toes. The incision is then stuffed with lint to arrest hæmorrhage and prevent immediate closure, and the wound is allowed to granulate up from the bottom. If the ulcer happen to be near the inner or outer side of the foot, the knife can be brought out on either of these surfaces, as the case may be. The procedure is only a modification of the well-known surgical practice of laying open a sinus and stuffing it so as to insure granulation from the bottom.

In case of *gangrene*, amputation is to be strongly recommended, even in apparently desperate cases. Accounts are given of two cases which survived the amputation of lower limbs, although performed when they were *in extremis*, and died from other causes, with firmly healed stumps, two years and " five " years afterwards.

The subject of the relation of the *kidney lesions* in leprosy considered in relation to the skin changes, has already been treated by Dr. Rake in this Journal (May, 1889), and need not therefore be referred to at length.

Briefly put, his conclusions are these: that the very low percentage of occurrences of bacilli in the kidneys goes far to exonerate the bacillus lepræ from being a direct cause of the kidney lesions; and that the much longer duration of life in cases of kidney disease associated with anæsthetic leprosy where the affection of the sweat-glands is secondary and comparatively slight, as compared with that in tubercular leprosy where the sudden eruption of tubercles may permanently damage a large number of sudoriparous glands, shows that the kidney trouble is due mainly to the sudden compensatory demands thus made upon the secreting structure of the kidney. The statistics given are too small to allow of reliable deductions as to the relations of the various form of kidney diseases.

The report is closed by some accounts of individual cases showing the difficulty of the diagnosis between congential syphilis and early leprosy, on the treatment of early leprosy by the excision and subsequent cauterization of tubercles on the supposition that the growth is at first purely local, a method which the author recommends, although in this individual instance it was not successful, and on the treatment of tubercular leprosy by the inunction of red iodide of mercury ointment, which also proved quite unavailing although pushed to the production of salivation.

THE SENSATION OF ITCHING. E. B. BRONSON. (*N. Y. Med. Record*, October 18, 1890.)

Dr. Bronson draws the following conclusions from a consideration of the subject of itching:—

1. That there is a sense of contact independent of the sense of pselaphesia.
2. That this sense of contact is the sense disturbed in pruritus.
3. That it concerns primarily simple cutaneous nerves or nerve endings situated superficially and probably in the epidermis.
4. That the disturbance in pruritus is of the nature of a dysæsthesia due to accumulated or obstructed nerve excitation with imperfect conduction of the generated force into correlated forms of nervous energy.
5. That scratching relieves itching by directing the excitation into freer channels of sensation, sometimes, especially when severe, substituting for the pruritus either painful or voluptuous sensations.
6. That the voluptuous sensations that may attend pruritus are a manifestation of a generalized aphrodisiac sense, representing a phase of common sensation that has its source in the sense of contact.

PSOROSPERMOSIS FOLLICULARIS CUTIS. L. D. BULKLEY. (*Med. News*, November, 1890.)

Bulkley reports a case of this disease as described by Darier and others. Patient was a German, age 49, male, on whom the disease first showed itself twenty-six years ago on the forehead and sternum. The lesions began as small reddened, brown points, or papules, which gradually enlarged and conveyed a rough feeling to the finger. By coalescence they formed small or larger patches, dirty or yellowish-brown in colour. At times, the eruption increases rapidly, at others, gradually. The former course is followed in the spring and fall, accompanied by fever, pains in the bones and confinement to bed, the affected surfaces becoming swollen and red. The patient's children as well as brothers and sisters are healthy.

At the time he was seen, he could not attend to his business, owing to nervousness and weakness. Lesions were situated from the top of the head to the groins and upper thighs. The plugs on the scalp were small, filling up the orifices of the sebaceous glands; on the forehead, pinhead size or a little larger, more prominent, flat or round, hard though greasy. On the chest and abdomen, the brown papules are more elevated and rougher, on the back, less plentiful, on the forearms, coalesced into patches. On the backs of the hands are found papules and small patches. The plugs are easily lifted up with the point of a knife, leaving small reddened depressions behind. In the plugs, the bodies called psorosperms were demonstrated by means of the microscope. The nails in this case were also thickened and raised from their base in the centre, their sides atrophic. They were fragile and fissured, and furrowed longitudinally.

Bulkley gives a *résumé* of the literature of the subject. He does *not* commit himself absolutely to the belief that the psorosperms cause the disease, expressing himself guardedly, and apparently requiring more definite proof than exists *so far*, before he accepts entirely the views expressed by the French school.

The case reported here is the same one which Dr. Lustgarten reported at the Berlin Congress as Psorospermosis follicularis, served as material for Dr. A. R. Robinson's paper on Lichen ruber, was also treated by Dr. Buckley ten years ago, and has been examined by the majority of the members of the N. Y. Dermatological Society.

GEORGE T. ELLIOT, M.D. (New York).

ON THE DANGERS ARISING FROM SYPHILIS IN THE PRACTISE OF DENTISTRY. (*Internat. Dental Journal*, August and September, 1890.)

Dr. Bulkley divides his subject into—1. The dangers from syphilis to patients undergoing dental operations; 2. The danger to the operator from the same source.

As an example of the first, he describes a case seen by himself in 1884. The patient had consulted him in regard to a sore on his tongue, which had begun ten weeks previously and had gradually enlarged, becoming ulcerated and developing an indurated base. A gland beneath the jaw on the same side had also become enlarged and painful. The patient stated that a month before the sore began, he had been under the care of a dentist, cleanly neither in his person nor instruments. In doing work on a tooth on the side of the mouth on which the sore later developed, the instrument had slipped occasionally and wounded the soft parts. He had not been exposed to contraction of the disease by sexual intercourse or in any other way. A few weeks after the patient had consulted Dr. Bulkley, a general eruption appeared, and it and the primary sore disappeared under syphilitic treatment.

Dr. Bulkley states that the circumstantial evidence in this case was so strong, that no doubt could exist but that the man had been inoculated by the instrument used by the dentist. In connection with this, Dr. Bulkley gives the literature of cases in which syphilis was contracted from some dental operation or other.

In regard to the second division of the subject, he mentions a number of instances recorded of dentists infected from treating syphilitic patients, and mentioned a case communicated to him by Dr. F. N. Otis, of a dentist who contracted a chancre of the lips. This latter had a habit of holding an instrument occasionally in his mouth, and had conveyed the poison to himself by this means, while operating on a patient who had a sore in his mouth, which was afterwards found to be a syphilitic one.

To obtain protection both for the operator and his patients, Dr. Bulkley recommends boiling the instruments for half an hour, cleansing them with a strong solution of carbolic acid, and the observation of absolute cleanliness in all the paraphernalia of dentistry.

George T. Elliot, M.D. (New York).

CASES OF CUTANEOUS TUBERCULOSIS WITH HISTOLOGICAL STUDIES. John T. Bowen. (*Journ. of Cutan. and Genito-Urin. Diseases*, December, 1890.)

1.—Tuberculosis cutis verrucosus of Riehl.

Case I.—Male, age 24. A lesion situated on the back of the hand, which had appeared five years previously while employed in caring for cattle on a steamer. The plaque has enlarged steadily and slowly. Dr. Bowen says this is the second case seen by him which gave this mode of infection.

Case II.—Female, age 65. Lesion on last phalanx of index-finger, and a gomme scrofuleuse on metacarpals of same hand. Warty patch had been present three years, and appeared while nursing a daughter who died of phthisis. No marked glandular enlargement, general health very good.

Case III.—Female, age 58. All of her family have died of phthisis. Lesion situated on the dorsum of the right hand, and began two years ago at time of death of a daughter from phthisis, whose soiled handkerchiefs and clothing she was in the habit of washing.

2—Cases of cutaneous tuberculosis in young subjects, consisting of sharply raised, reddish-blue nodules, sometimes confluent, usually, but not always, with a warty surface, resembling Tuberculosis verrucosa cutis of Riehl, situated chiefly on the backs of the hands, elbows and knees.

Case IV.—Female, age 16, in good health, and giving no tubercular antecedents in family. Two years ago she bruised her elbow, and the present disease began as a small tubercle, which, steadily increasing in size, has now become as large as a silver dollar. It is slightly raised and yielding to the touch, at its upper portion, represented by a diffuse subepidermal infiltration, and showing on the surface a thickened and warty appearance of epidermis. The lower portion consists of detached nodules the size of a pea, not warty. Between the two some atrophy of skin.

Under the miscroscope, the stratum corneum thickened; there is marked epithelial proliferation, the rete sending deep prolongations into the corium, the papillæ elongated. In upper part of cutis, enlarged vessels and lacunæ, and a finecelled infiltration. In the papillæ, Langhan's giant cells, and between them epithelial and round cells. Lower layers of corium appear normal. Bacilli found sparingly, the first being met with in the thirteenth section.

Case V.—Male, age 7, had seven months ago what was said to be pneumonia. Soon after the patches of present disease began on the wrist, and later appeared on the knee and the elbow. Clinical symptoms substantially the same as in preceding case.

Only fourteen sections could be examined for bacilli in this case. None were found.

Case VI.—Female, age 6, sister of preceding one. Children slept together when disease began on brother. Mother says it appeared at same time on girl. The appearances are the same on her as on the former. No microscopical examination made. Neither one of these cases were seen by Dr. Bowen for about a year. The treatment he had prescribed (Ungt. Hyd. Ammon., 5 per cent., and a mild salicylic acid ointment) had been followed but a short time. The lesion on the boy's wrist had, however, healed, leaving a scar. Several of the warty plaques had disappeared, scars remaining, and no new manifestations had developed.

The lesions on his sister had also partly involuted, but she had lost strength and flesh, and coughed distressingly. Marked implication of the apex of the right lung was found.

Case VII.—Female, age 19 months. Inception of disease uncertain. Child always delicate. An aunt ill from phthisis lived in house three months before she died. Child has coughed for some time. The lesions consist of bluish-red papules, size of a large pea, elevated, some warty, others smooth, and situated on the backs of the fingers of both hands. Similar ones are present on thighs, but none warty. Histologically it may be said that the foci of epithelial and round cells were high up in the cutis, in the papillæ themselves. Bacilli found in the sixth section.

Dr. Bowen believes that the forms of disease represented by the Cases IV., V., VI., and VII., agree clinically quite accurately with those described by McCall Anderson in 1868, under the name of Lupus verrucosus, or Scrofuloderma verrucosum. But still, in the light of modern work, he thinks their place is with the Tuberculosis verrucosa of Riehl, though they differ from it in that Dr. Bowen's cases were observed especially in young subjects, in the absence of purulent foci and in their less marked warty character. In his opinion the lesions represent the result of local inoculation of tuberculosis on the skin of (usually) young subjects.

George T. Elliott, M.D.

PEMPHIGUS CIRCINATUS. C. W. Allen. (*Journ. of Cutan. and Genito-Urin. Dis.*, December, 1890.)

Patient, female, age 45, a widow, was seen by Dr. Allen in January, 1890. She had never had any skin disease, had had no recent illness, had taken no drugs of any kind. Four days before entering hospital she had noticed a soreness of throat, for which she received a gargle at a dispensary. On the following day, tongue and lips swollen, face puffy about eyelids. Gargle discontinued. The next day observed a small water blister on right wrist, which itched, and was ruptured by scratching. Complained of considerable indefinite malaise. A similar bulla appeared on left wrist, and then they began cropping out more or less symmetrically over face, trunk, and extremities, but more especially the upper. They varied in diameter from that of a large pea to a silver dollar. Some arose from an erythematous base, others from one not reddened. Some coalesced together, and, rupturing, left excoriated places. The bullæ from a non-erythematous base ruptured, dried, and desquamation took place. Those surrounded by a margin of reddened skin would dry in centre and spread at periphery by raising up the epidermis, or a ring of contiguous or of confluent bullæ smaller than the parent one would form around it. In some the central bulla ruptured only after the ring was formed, then the denuded surface became dry, scaly, bluish, and violaceous in hue, while the border became crusting. While under treatment herpes iris-like lesions were also observed, or some ring-shaped ones were seen, and also groups of papulo-vesicles, or flattened papular lesions. January 31st, a small percentage of albumin was found in the urine. February 26th, œdema of legs from knees to feet was noted, hands puffy, 5 per cent. albumin in urine, hyaline and granular casts, aortic obstruction and mitral regurgitation. March 13th discharged free from eruption, but dark pigmentation where the lesions had been. May 2nd, was readmitted to hospital. A relapse had occurred a week after leaving, in March. She was again discharged May 25th, but returned June 30th with another attack, which lasted until September 15th.

The treatment consisted of Fowler's solution. Beginning with three-drop doses, it was increased every day by one drop at each dose. How high a number of drops was given is not stated. It was discontinued several times. Digitalis and muriate of iron was also given at one time. Externally a zinc and starch paste, with ʒi of Tinct. of Benzoin in ℥i was first used; later, Resorcin, grs. ijss., in Collodion, ℥i. Dr. Allen admits that, according to Duhring's description, this case could readily be included in his Dermatitis herpetiformis; but he thinks that this is only because it has been made so comprehensive as to embrace instances of this as well as of other forms of Pemphigus. He would, however, regard it as a Pemphigus.

GEORGE T. ELLIOT, M.D. (New York).

BULLOUS ERUPTION: DIPHTHERIAL INFECTION. J. CROSS, M.D. Cantab. (*British Med. Journ.*, December 20, 1890.)

A child was brought to me with a small bulla in the middle line of the neck, just beneath the chin. Although the appearance was strange to me, I paid but little attention to it at the time; but a day or two afterwards I again saw the child, and found that the bulla had ruptured, leaving a gray ulcerated surface, which was rapidly spreading, while the general health was manifestly affected. I then learnt that the child had been in contact with some other children suffering from diphtheria, and on examining the throat, of which no complaint had hitherto been made, I found a small patch on one of the tonsils. This never spread, but the lesion on the neck gradually got as large as a florin, and it was only by the application of a strong solution of nitrate of silver that the destructive process was checked.

There was no affection of any other part of the body, whether mucous or cutaneous, and the child eventually made a good recovery, though the cicatrix of the ulcer is to this day plainly visible.

NEURO-TRAUMATIC PEMPHIGUS. (*Brit. Med. Journ.*, December 20, 1890.)

Kaposi (*Archiv f. Derm. u. Syph.*, Heft 6, 1890), describes a case of neuro-traumatic pemphigus occurring in a waitress aged 22. The patient had torn the fold of the nail of the right middle finger with an iron nail, and the wound was dressed with iodoform. Pustules appeared shortly afterwards on the dorsal surface of the middle finger, preceded by a burning sensation. Pustules later on developed on the back of the hand, inner side of wrist, and on the inner side of the upper arm, in which part pain was felt. The patient stated that at a certain place she felt pain and burning, and after two or three hours the part became bright red, extending over an area nearly as large as the palm of the hand, in the middle or on the margins of which white shiny urticarial protuberances and swellings formed. Within two or three hours bullæ formed, varying in size from a pea to a hen's egg, isolated and confluent, and filled with a clear serum. The larger bullæ burst, and formed scabs under the partially denuded corium, which was afterwards covered by normal skin, pigmented spots being left. Kaposi states that in this case the development of bullæ was always preceded by pain and burning, sometimes by a feverish attack, the eruption appearing several days later on the inner surface of the forearm, spreading to the upper arm, over the shoulder, on the right side of the neck, and on the fourteenth day for the first time there developed a group of bullæ on the front part of the left side of the neck, and on the same on the breast, shoulder, and back. During the following weeks bullæ appeared here and there—on the eyelid, wrist-joint, calf of the leg, etc. There is now present a fresh eruption of bullæ on the upper and lower lips, and in different groups on the lower part of the thigh the bullæ are as large as a hen's egg. At short intervals similar eruptions had occurred up to the date of report (September, 1890). Microscopic investigation revealed the presence of the organism described by Lukasiewicz.

CUTANEOUS ERUPTIONS ASSOCIATED WITH GONORRHŒA. LÉON PERRIN. (*Annales de Derm.*, November, 1890.)

M. Perrin sums up the conclusions of his observations as follows:—The cutaneous eruptions may be classified among the exceptional manifestations of gonorrhœa. The eruptions are polymorphous, scarlatiniform, rubeoliform: they have no special character, in fact they have no objective characters to distinguish them from erythemata arising from other external or internal causes.

The pathogeny of erythemata occurring in the course of gonorrhœa is complex. They may be simply coincidences arising from accidental and unknown causes; or they may arise directly from the gonorrhœa, or from the balsams administered for its treatment. A rash may supervene in the course of gonorrhœa even when no medicaments are given. It cannot be asserted with proof that the eruptions are due to the presence of the gonococcus in the blood or articular fluids. The rash is but rarely dependent on secondary infection, for which the gonorrhœa has proved a favourable antecedent. As a rule they must be regarded as angio-neurotic erythemata, originated by the influence of the gonorrhœa on the vaso-motor system. The balsams, and especially copaiba, produce, most frequently, gastro-intestinal disturbances, but they may produce toxic erythemata. The balsams are not directly pathogenic; it seems necessary that the gonorrhœa should first prepare the way.

LESLIE ROBERTS (Liverpool).

AN EXPLANATION OF THE SO-CALLED GONORRHŒAL EXANTHEM.

Prof. **Max Flesch.** (*Monatsh. f. prakt. Derm.*, No 9, Bd. XI.)

Dr. Flesch believes that there is a direct connection between the gonorrhœa and the exanthem which is apparently caused by it, inasmuch as the swelling of the prostate which so often accompanies the disease, and is very frequently overlooked, produces a difficulty in defecation which induces disturbances in the digestive processes, and in consequence a condition of the system which favours the development of exanthemata. He quotes several of his cases in which not only the actual exanthem, but also the liability to its return, were at once removed by the exhibition of purgatives. H. G. B.

SALICYLIC ACID IN THE TREATMENT OF SKIN DISEASES.

Dr. Charles Szadek reports, in the *Internat. klinische Rundschau*, 1889, 28, his experience of salicylic acid applied externally for skin affections. It is stated that he considers it a very useful remedy for "conditions in which we have an abnormally soft, thin cuticle and new formation of the skin, in inflammatory process of the skin with hyperkeratosis, and in parakeratosis." The drug is considered by him to be of great value in several forms of eczema of long standing, and for corns, warts, psoriasis and lichen planus. Excellent results have attended its employment for eczema marginatumi favus, ringworm, and hyperidrosis of feet and hands.

For *eczema impetiginosum* of children he uses :—

℞	Acidi salicylici	ʒss.
	Vaselini	℥ss.
	Oxidi zinci	
	Amyli puri	āā ʒvi.
	M. ct. ft. pasta.	

In the removal of warts, callus, and old psoriasis plaques, good results follow the use of a 10 to 20 per cent. ointment of salicylic acid. A 8 per cent. plaster greatly benefited six inveterate cases of eczema of the leg. For psoriasis a 10 per cent. alcoholic solution of the remedy is recommended.—*The Satellite*, December, 1890.

Alfred Eddowes.

"LELOIR ON SYMPTOMATIC DERMATONEUROSIS." Dr. Baude, Lille (Prize Essay, 1889).

In this essay, which is based on a large number of observations made by Prof. Leloir in the course of clinical practice, M. Baude further develops the theories advocated by the Professor since 1881, with regard to the great importance which should be attached to the presence of certain cutaneous disorders, in the diagnosis of lesions of the nerves, which might otherwise have remained undetected, or only have been perceived at a subsequent stage, the skin, as Prof. Leloir maintained some nine years ago, acting as a kind of mirror to the nervous system.

To the forms of Dermatosis which manifest themselves under these particular conditions, M. Leloir has given the name of Symptomatic Dermatoneurosis. M. Baude further develops the theories on this subject advanced by his teacher in his former lectures, and particularly in his course of clinical lectures published in the *Annales de Dermatologie*, May 1889. P. Tavernier.

SYPHILIS AND PALUDISM. Dr. G. Lepers, Lille (Prize Essay, 1889).

"Paludism, as M. Leloir used to say in his clinical lectures, plays an important part in the etiology of malignant cases of syphilis. I have in my possession a number of very convincing notes on this subject, and it would seem very probable that paludic poisoning frequently causes aggravation in cases of syphilis" (*Veleur: Leçons sur la Syphilis*, 1885).

M. Lepers, after a few words on the history of the disease, proceeds to consider the action of paludism on syphilis; he bases his arguments on numerous observations communicated to him by M. Leloir, and on personal experience obtained while working under that gentleman.

Paludism acts (1) directly: syphilis and impaludism are maladies caused by microbes of probably different nature and habits. M. Lepers advances the hypothesis that the paludism microbe is ærobious, while the syphilitic microbe is anærobious; it would follow, therefore, that the vital energy of the latter increases in proportion to the amount of oxygen consumed; in support of this hypothesis we have the fact that syphilis extends its ravages in an alarming way, in the case of persons reduced to physiological poverty.

Paludism acts no less by its indirect consequences; depressing organic action, and bringing the syphilitic patient into a state of palustral cachexia. This cachexia is the result of important modifications which take place in the blood, viz.: hypo-albuminosis, diminution of the globules, disorders of the hematopoietic processes, all of which causes, in conjunction, deprive the diseased tissues of the power of resistance and of recuperative force. In addition, this palustral cachexia is invariably accompanied by serious visceral lesions, among others, chronic nephritis. This renal disorder tends to retain the microbes in the blood, and finding in it an environment suitable for their development, they act with an intensity which increases as they become more numerous.

M. Lepers then proceeds to quote a number of very convincing cases, and concludes with a few remarks on the treatment to be followed in cases of syphilis complicated with paludism; in addition to mercury and iodide he recommends the use of sulphate of quinine, and hydropathic treatment, in the form of cold douches in the region of the liver and spleen.

P. Tavernier.

A CASE OF SCLERODERMIA. Professor E. Mendel (Berlin). (*Deutsch. Med. Wochschr.*, 84.)

The patient was a married woman, aged forty-one years. At twenty-four she had suffered from an attack of enteric fever, but had been otherwise healthy, until four years ago, during her third and last pregnancy, when the first symptoms of her disease appeared; these consisted chiefly in coldness and lividity of the tips of the fingers and toes, and of the tip of the nose. During the following summer these disturbances disappeared, but became aggravated when colder weather again set in. In the course of the winter 1888-89 whitlows appeared on several of the fingers, and at the same time the end phalanges were observed to be insensible to pain. It was also noticed that a larger portion of the skin was considerably discoloured, thicker, tense and painful. This spontaneous painfulness soon spread, and gradually became so intense that last winter the patient was confined to her bed. At present the face presents the characteristic appearance of sclerodermia; the nose has become smaller; the mouth is so much contracted that the introduction of food is attended with difficulties; the skin of the face is rigid and of a bronzed appearance. On the tongue a wedge-shaped portion is dry and thickened, and distinctly different to the other parts. The hairs have disappeared to a certain extent, and the scalp is stiff and immovable. The forearms are especially affected; here the muscles are visibly atrophied; the joints of the fingers and the elbows are fixed in the flexure position. The skin of the fingers is glossy, white, and utterly devoid of hairs. Ulcerations are present on the extensor surface of the right elbow and on the hand. A systolic murmur at the apex of the heart and other indications of insufficiency of the mitral valve were present, but the other internal organs were healthy. Any further disorder of the sensory nerves was not to be detected. This patient therefore presented during the first two years chiefly the symptoms of Rayneaud's disease, *i.e.*, localized asphyxia; then the signs of Morvan's disease, analgetic panaritium, supervened, and in conclusion sclerodermia was the result. Probably all these three disorders are due to one common cause, a disturbance of the nervous apparatus. The report of Dr. Schulz of Brunswick describing extensive lesions of the anterior roots of the spinal cord in a case of this kind combined with bronzed skin is extremely worthy of notice, and seems to point to a possible final solution of this intricate question.

PHILIPPI.

MOLLIN, A NEW OINTMENT BASE. JULIUS KÜHN. (*Berl. kl. Wochschr*, 36.)

Mollin is a seventeen per cent. superfatted soap, prepared by Apotheker Canz, of Leipzig; it consists of pure, fresh fat, ditto tallow and cocoanut-oil, which ingredients are first treated with caustic potash and sodium, so as to form a soap without the application of heat, whereupon thirty per cent. of glycerine is added, and the whole is heated. In this way all free alkali is safely bound, and the result is a very soft, slightly yellowish-white mass, which will keep for years without undergoing any alteration. A slightly harder preparation is also manufactured as being better adapted for hot climates. Mollin has already been extensively used, but Dr. Kühn thinks its advantages have not been sufficiently appreciated hitherto. He has employed it in a series of skin disorders, including acne vulgaris, scabies, syphilis, psoriasis, herpes squamosus and seborrhœa manuum, and has found it most agreeable and useful. In one class of skin diseases, however, it should be avoided, viz., in the acutely inflammatory affections; but this may be considered a drawback of lesser importance in comparison to its numerous advantages. It is an exceedingly cleanly preparation, makes no spots on linen, and is most speedily removed by means of washing with pure water; it combines intimately with the usual drugs (mercury, chrysarobin, styrax, &c., &c.), as Dr. Kühn has proved by microscopal examination. This advantage is not possessed by lanoline. With mercury mollin is miscible in the proportion of 1·2 or 1·1, and forms an even mass, which penetrates far more easily into the skin than any other preparation of blue ointment.

PHILIPPI.

ON THE VALUE OF SALT-WATER BATHS IN THE TREATMENT OF SYPHILIS BY BICHROMATE OF POTASSIUM. J. EDM. GÜNTZ. (*Therap. Monatsh.*, October, 1890.)

Dr. Güntz has treated a large number of patients suffering from syphilis with chrome-water, but in spite of the treatment proving decidedly successful, he was unable to discover traces of the remedy in the urine of the patients so treated. Latterly he has adopted the plan of giving prolonged hot baths of natural or artificial salt-water, and has observed that not only was the success of the cure much enhanced by this measure, but also that the chemical element very soon became discoverable in the urine. Its detection requires a rather complicated process: after a small addition of nitric acid the urine has to be evaporated on a water-bath, the dry residue is heated to redness, then dissolved in muriatic acid and boiled with a small addition of alcohol; thereupon a precipitation is produced with Na_2 CO_3, and after again heating to boiling point chloride of ammonium is added until all ammoniac remains bound; the precipitate is then filtered, dried, melted together with three times as much soda and cyanide of potassium and boiled with water; the insoluble remains are filtered and tested in the gas-flame on charcoal. The chrome-water is prepared by Apotheker O. Lische of Plauen, Dresden, and contains 8 centigrammes of the bichromate of potassium per bottle. Of these, one, two, or more are consumed daily. The baths are of 28° R., and are continued for half an hour, after which the patient is immediately placed in bed, and care taken to ensure free perspiration. PHILIPPI.

A CASE OF RECENT SYPHILIS OF THE SPINAL CORD. GILBERT. (*Transactions of the Société Medicale des Hôpitaux*. From the *Allg. Med. Centr. Z.* 78.)

Lesions of the spinal cord are rare in the early stages of syphilis, especially in the first two years after primary infection. Strangely enough, the first year produces twice as many cases as the second, and of the first year the second quarter seems to be the most dangerous period. Persons in whom the disease has been neglected or imperfectly treated appear to be more prone to syphilis of the spinal cord than those who have been subjected to systematic treatment; but even these are not exempt. The trouble is confined almost exclusively to the male sex. An exciting cause is generally not to be discovered. The prodromata consist of pains in the back, dysuria, weakness of the lower extremities, etc. In Gilbert's case the disease ran such a rapid course, that forty-eight hours after the first symptoms became apparent there was complete paraplegia, paralysis of the sphincters, tremors, reduced patellary reflex and loss of perception of cold and warmth. In other respects neither sensibility, the skin reflexes, nor muscular sense were impaired. Slight vaso-motor disturbance was noted, semi-erection of the penis, slight œdema of the lower extremities, besides a total suppression of the perspiration, which latter symptom was fruitlessly treated with pilocarpine. It was perfectly clear that this was a case of syphilis of the spinal cord, and the region attacked by the disease could be accurately established, but Prof. Gilbert was not able to decide as to the nature of the lesion, whether softening had taken place or sclerosis. The duration of such disorders is always exceedingly lengthy, but one need not despair of achieving improvement even after the lapse of ten or twelve months. PHILIPPI.

IODIDE OF POTASSIUM IN URTICARIA.

Edm. Stern. (*Münch. Med. Wochschr.*, 40.)

This remedy has already been recommended by Erasmus Wilson, but does not appear to have attracted so much notice as it deserves. Dr. Stern has employed it in five different cases of urticaria, partly acute and partly chronic, and has found it exceedingly serviceable. It was given in solution, the dose requisite to remove all symptoms varying from ninety grains to seven times that quantity, dispersed over an adequate number of days. Of other remedies, the author has experience with ichthyol, salycilate of sodium, tincture of strophanthus, antipyrine, arsenic, atropine, etc. He considers iodide of potassium always worth trying, although it is confessedly not an infallible specific any more than are the other remedies in use.

Philippi.

A CASE OF DIFFUSE LYMPHANGIECTASIS OF THE GENITALS.

Prof. Kast (Hamburg). (*Deutsch. Med. Wochschr.*, 42. *Wien Med. W.*, 47.)

A factory girl, aged 23 years, had noticed a slowly increasing, painless swelling of the external genitals during the last thirteen years. In 1887, she suffered from an erysipelatous infiltration of the skin of the left thigh, and in 1888 she underwent an anti-syphilitic course, but without the slightest effect. The swelling was always aggravated by bodily exertion. In January, 1890, she was admitted into the General Hospital with a swelling of the left labium major, which was increased to double its normal size, and felt tense and resistant. The mons veneris and the adjacent parts of the left thigh presented a similar condition. The integument was normal, except the surface of the lesser labia, which were covered with a number of small, translucent vesicles containing a watery, alkaline fluid. Professor Kast is uncertain whether this condition is to be considered a localized neo-plastic formation of lymph ducts, or whether it was due to obstruction of one of the larger lymph channels. A moderate flow of lymph could certainly be always produced by puncture of the vesicles. The case is illustrated by a photogravure.

Philippi.

ON THE TREATMENT OF SYPHILIS WITH MERCURY SUCCINIMIDE:

J. Vollert (Vienna). (*Therap. Monatsh.*, November, 1890.)

The author has already published favourable results following the treatment of syphilis by means of succinimide of mercury, and again refers to the subject, having since his first publication been able to confirm the observations therein reported by further experience. Succinimide of mercury is prepared by allowing oxide of mercury to combine with succinimide according to the formula:

$$2(C_4H_5O_2N)+H_gO=(C_4H_4O_2N)2\,H_g+H_2O.$$

Vollert prescribes daily injections of one Pravaz syringe full of the following solution:—

℞	Hydrargyri succinimidati (Kahlbaum)	2,0
	Cocain. muriatic.	1,0
	Aq. dist.	100,0

S. For subcutaneous injection.

It is claimed that this remedy is quite as active as the insoluble salts of quicksilver, and, being soluble, devoid of the dangers which are occasionally observed to accompany these preparations. For practitioners who are not habitually employed in the treatment of syphilis injections of succinimide mercury are recommended as being next to the treatment by inunction the safest and surest method.

PHILIPPI.

ORIGIN OF CANCER. L. VON DITTEL, JR. (*Wien. klin. Wochschr.*, 89.)

Dr. von Dittel reports two cases of cancer of the integument, which are of much interest on account of their mode of origin, one arising in the scar caused by a burn, the other forming on the base of a Hunterian chancre. The first patient, æt. 45, had sustained a burn on his cheek from a cigar in the year 1887, resulting in an ulcerating wound ¾ of a centimetre in diameter, which, in consequence of inappropriate treatment, was three months in healing. Half a year afterwards a certain hardness was noticed in the scar, but was not further attended to. In March, 1890, the patient was admitted to Professor Billroth's clinique with a hard tumour the size of a hazel-nut. On excision this was found to be an epithelial carcinoma presenting very characteristic "nests." The second patient, an upholsterer, thirty-three years old, acquired a syphilitic ulcer of the penis in February, 1888, and was treated for macular syphilides in Professor Lang's hospital for some months subsequently. In March, 1889, the site of the former ulcer developed a rapidly increasing sore, which soon spread from its original locality to the glans penis and necessitated amputation of the member. Microscopical examination revealed here, too, an undoubted cancer. Eight months later the patient was readmitted with a secondary tumour in the inguinal region, the penis however not being again affected. Eventually the patient was dismissed as cured after three operations. It is worthy of note, that his father had also suffered from cancer of the penis, but had remained in good health after amputation of the member had been performed.

PHILIPPI.

THÖR reports (*Wein. Med. Bl.*, 1890) good results in *painful ulcerations of the feet* from Resorcin ointment. In the strength 5, 10 to 25 per cent. it effectually alleviates the pain and induces speedy healing.

(*Therap. Monatsh.*, October.)

CORROSIVE SUBLIMATE IN PEMPHIGUS. P. J. MATZOKIN. (*Rüsskaia Meditsïna*, Nos. 29 and 30, 1890, p. 455.)

Dr. Matzokin, of Odessa, details at considerable length five cases of severe pemphigus in children, rapidly cured by corrosive sublimate. One of the cases, referring to a boy two and a half years of age, is described as a "pemphigus foliaceus acutus"; another, that of a boy of three months, as a "pemphigus neonatorum"; and the remaining three, referring to a boy aged four years eleven months, and two girls of about seven years of age, as "pemphigus simplex vel vulgaris." The sublimate was used in the shape of baths at from 30 to 32° R., containing the salt in the proportion of 1 to 1,000, or even 1 to 600, and sometimes 1 to 400. The following solution was employed for the purpose :—

℞ Hydrargyri Sublimati Corrosivi . ʒss
Spiritus vini roctificati . . . . ℥iv.
M. F. Sol.

The weaker baths were repeated three times, the stronger once, daily. During the intervals the blebs and erosions were thickly powdered with this compound:—

℞ Oxidi Zinci
Pulv. Lycopodii
Ana.
M.

After a few baths bullæ ceased to form, the rash disappearing, and convalescence being established in about ten or fourteen days. In none of the patients the slightest indication of syphilis could be discovered. In three of the cases malarial poisoning appeared to constitute a predisposing (exhausting) cause of the exanthem. In one child pemphigus developed shortly after a severe attack of scarlet fever. The infant was in a very low condition, in consequence of a badly managed artificial feeding.

The author arrives at the conclusion that corrosive sublimate affords a reliable means for curing pemphigus of the said varieties, and that the beneficial effects of the drug should be attributed to its "destructive action on the pathogenic principle of the disease," which action is said to be "analogous to that on the syphilitic virus." VALERIUS IDELSON (Berne).

CASE OF MERCURIAL URTICARIA. S. JARÜSOFF. (*Meditzinskoië Obozrenïi*, No. 21, 1890, p. 782.)

Dr. Jarüsoff, of Moscow, narrates an interesting case of a syphilitic watchmaker, aged 16, in whom hypodermic injections of corrosive sublimate (⅓ grain, repeated once daily or every other day) invariably gave rise to attacks of a typical urticaria, the rash appearing (in ten, twelve or more hours after an injection) now in the morning, and then about the evening time, and lasting for several hours, to disappear spontaneously. The size and extension of the eruption greatly varied. Sometimes the itching wheals covered only this or that forearm, while on other occasions they were scattered over the whole abdomen, back, neck and thighs. On discontinuing the injection, the attacks would cease to occur, reappearing immediately after resuming the mercurial treatment. The author does not entertain any doubt that the exanthem had a mercurial origin (and did not depend upon any local irritation by punctures or infiltration at the site of the latter), since the subcutaneous injection of a solution of chloride of sodium (gr. ii. to ℥j. aq.) was never followed by any rash, whereas a subsequent course of mercurial frictions (ʒss. of gray salve a day) caused an attack of urticaria, occurring after a sixth inunction.

According to the writer, international literature contains but a scanty number of cases of undoubted mercurial eruptions. Such cases were published by Auer, Du Mesnil, Engelmann, Epstein, Falk, Ferrand, Keller, Lesser, and Tipper. [The list may be supplemented by Shephard's case (*vide* the *British Journal of Dermatology*, April, 1890, p. 127); Petersen's (*ib.*, Sept., p. 271).*—REPORTER.]

VALERIUS IDELSON (Berne).

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* And Robinson's two cases (*Bulletins d. Soc. de Thérapeutique*, 1890, Feb. 26).

THERAPEUTIC NOTES.

FISSURE OF THE NIPPLE.

Scarff (*Les Nouveaux Remédes*, October 24, 1890, p. 474) gives the following formula:—

℞	Balsami Peruv.		
	Tinct. arnicæ	āā	2·00 grammes (gr. xxx).
	Olei amygdalæ dulc.		30·00 grammes (℥j).
	Liq. calcis		15·00 grammes (ʒiv.)—M.

Sig.: Anoint the fissures after each nursing.

The Satellite, Dec. 1890.

CREOLINE FOR PRURITUS.

Durr (*Journ. des Malad. Cutan. et Syph.* 31 Oct., 1890) recommends:—

℞	Creolin	3–5 parts.
M.	Ol. Lini.	100 „

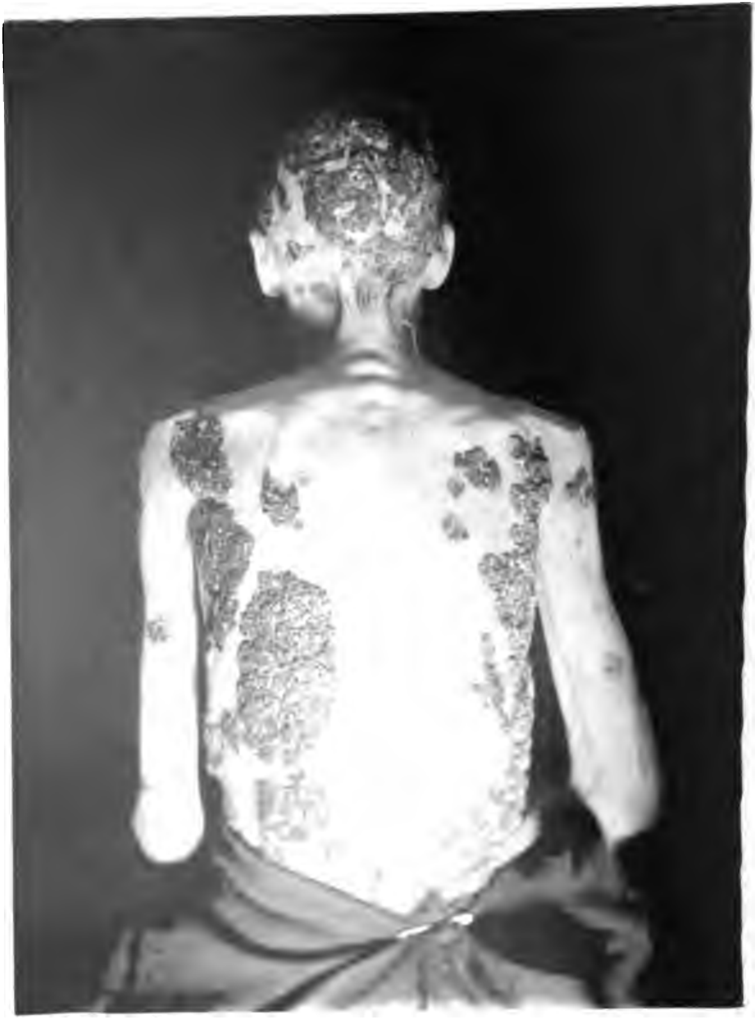
To be applied three or four times daily.

AN ANTISYPHILITIC PILL.

Charpentier (*Journ. des Malad. Cutan. et Syph.*) looks upon the bichromate of potash as a substitute for mercury. He gives the following prescription for pills:—

℞ Pot. Bichromat. 15 grains.
Extr. Gentian. q. s.

To make eighty pills. Take one to ten daily.



MR. MALCOLM MORRIS'S CASE OF FAVUS.

THE BRITISH

JOURNAL OF DERMATOLOGY.

APRIL, 1891.

AN EXTENSIVE CASE OF FAVUS.

BY MALCOLM MORRIS.

E. C., aged 37 years, single, charwoman, was admitted, on the 2nd of October, 1890, into St. Mary's Hospital, under my care.

The following account of the case is abbreviated from notes taken by Mr. Campbell, House Physician:—Patient's father dead; had œdema of extremities. Mother died of heart disease. Four brothers and sisters, all living and well in health. Several years ago patient was treated in Richmond Infirmary for abscesses in the neck. With this exception she cannot remember having suffered from any illness beyond her present skin affection. She has worked hard for some time and taken little food. Two months ago she began to feel ill and unfit for work; has not done any work since then, but has not been confined to bed.

History of present condition.—Fourteen years ago a small red sore began on her head, and continued to spread. For this she washed her head with yellow soap, and applied zinc ointment to the crusts which formed. The crusts continued to spread, and her hair fell out. Two months ago her back felt sore, and since then has become rapidly worse.

Condition on admission.—Patient is wasted and in a very exhausted condition. Little hair remains on the scalp, which is covered with large patches of favus crusts. The characteristic mousy odour is very strong. Between the crusts are irregular areas of pale bluish-pink scars. A great portion of the back is also occupied by large masses of crusts, as will be seen by the accompanying photograph, taken by Mr. Crowle, Surgical Registrar. The nails of both hands and both feet are affected, particularly those of the first finger of each hand and the great toes.

The patient was in an advanced stage of phthisis, and died on the 28th of October, three weeks after admission.

Dr. Robert Maguire has kindly given me a report of the post-mortem examination which he made:—

The body was much emaciated, rigor mortis present in all parts, post-mortem hypostasis dorsal, but slight. On the external surface there was a large number of crusted excrescences, mostly of very irregular form. The largest were on the lower part of the back, and here superficial ulceration of the skin had taken place to a great extent, though apparent to a less degree in other parts of the body. The crusts were firm and of a yellowish colour. On the right cheek there were three small excrescences, each having the area of a threepenny piece, which presented the typical cup-shaped form of favus. Several of the nails, especially those of the index-fingers and the great toes, were thickened, of irregular surface, and without gloss.

The subcutaneous fat was scanty. The peritoneal and pericardial cavities were normal, but both pleural cavities were occupied by old fibrous adhesions, the more dense on the left side.

The larynx, trachea and large bronchi were normal.

The pleura covering the left lung was much thickened. On section the upper lobe was seen to contain a large irregular cavity at its upper part, having soft ulcerated walls, covered in parts by caseous matter. On the walls large blood-vessels with thickened coats were apparent. Several smaller cavities of similar character were also found in the upper lobe. In the lower lobe there were, at the upper part, a few small cavities containing caseous matter. Around the cavities in both lobes, and occupying the whole of the lower part of the lower lobe, there were numerous masses of soft, caseating tubercle, leaving scarcely a part of the lung free from disease.

The right lung showed in its upper lobe numerous cavities, the largest being about the size of a walnut, similar in character to those of the opposite side. Around the cavities were nodules of softening tubercle. The middle lobe was transformed into a mass of caseous tubercle, while in the lower lobe there were many grape-shaped, caseous, peribronchial tubercular masses, the surrounding tissue being congested and œdematous.

The bronchial glands were normal.

The liver was of normal size, and on section pale, slightly fatty, but not amyloid. The spleen was somewhat enlarged, firm on section, and showed numerous "sago grains," which stained a deep brown colour with iodine.

The kidneys were slightly enlarged, pale in colour, and of normal consistence. On section the cortical portion was somewhat increased in extent and paler than the medullary portion. The capsule peeled off easily, and left on removal a smooth surface. There was no amyloid reaction.

The pharynx, œsophagus, stomach, duodenum and pancreas were normal. The mucous membrane of the intestines, when treated with iodine, showed a mahogany discolouration of the villi.

The uterus, bladder, and ovaries were normal.

The nervous system was not examined.

On microscopic examination, the lungs showed the typical elements of tubercular infiltration, but without the presence of the favus parasite. This was, however, abundant in the skin lesions mentioned.

REMARKS.

The illustration gives a good idea of the extent of the disease on the head, trunk and arms. Of recent years no case of favus, such as the one just described, has been recorded in London. The only case with which it can be compared is one published as far back as 1862 in the *Medical Times and Gazette,* under the head of "Reports of Hospital Practice." The patient, a stunted youth of 20, was under the care of the late Sir William Gull, at Guy's Hospital. The disease had lasted fourteen years. The following was his state on admission:—"A strong, peculiar, very offensive odour is perceived on approaching the patient. The crusts are found on the arms, scalp, trunk, and lower extremities. He says that he never had any on the palms of his hands, nor on the soles of his feet, nor on the ears, front of neck, or face, except on the forehead and temples. All the crusts that are distinct are circular, or nearly so. The smaller ones are cupped in the centre, which is depressed. Each of those on the head has a hair in the middle. Hair grows through some of the larger ones too. These larger ones, some of which are two inches in diameter, are elevated, and appear to be formed of concentric rings, getting broader and broader towards the base. Many of the crusts are much cracked in all directions; those about the joints are deeply fissured transversely. The edge of the skin surrounding the larger ones is a little elevated, and about all it is of a purplish-red colour. There is a small crust in the matrix of the nail of the left ring-finger, presenting the same microscopical characters as the above. The nail is in great part destroyed."

In commenting on this case, Mr. Hutchinson says that it is interesting "apart from its severity, because it presents us with an instance of favus of one of the finger-nails. This disease has been described both by German and French dermatologists as occasionally attacking the nails, but we have ourselves never before seen an instance of it in English practice."

I have been unable to find any record of a similar English case in which the nails were affected. In my case some of the nails were so much affected that no trace of true horny substance remained, but its place was occupied all over the matrix and nail-bed by an irregular, lumpy, dirty yellowish crust.

Another point worthy of notice is the age of the patient. The disease began when she was 23, and lasted fourteen years. Among the forty-four cases reported by Mr. Hutchinson in the *Medical Times and Gazette*, 1859, the greatest age was 29 years. There is no doubt that favus is remarkably rare in adult life—at any rate, in England.

Another point of interest about the case is the rapidity of spreading during acute phthisis. According to the patient's account there was little or no disease on the trunk until two months before her admission—that is to say, during the last stage of phthisis.

It seems remarkable that my patient should have suffered from a disease known to be contagious, and for so many years, without apparently having conveyed the disease to any one else—not even her own brothers and sisters, of whom she had four. Looking at this fact, one is not surprised to find that, only a comparatively few years ago, this malady was looked upon by many observers in the medical profession as non-contagious.

Rarity of the disease in London.—The rarity of the disease in London may be fairly judged by the number of cases which have attended at the skin departments of the various hospitals named below, during the past year. I take this opportunity of thanking my colleagues for their kindness in replying to my inquiries on the subject.

Mr. William Anderson	St. Thomas's Hospital	One case.
Dr. Cavafy	St. George's ,,	No case.
Mr. Harrison Cripps	St. Bartholomew's ,,	Two cases (one, an elderly woman, a Polish Jewess).
Dr. Radcliffe Crocker	University College ,,	Three cases (two in one family), the third case German, contracted in his own country.
Dr. Duffin	King's College ,,	No case.
Dr. Colcott Fox	Westminster ,,	Two cases.
Dr. Stephen Mackenzie	The London ,,	Three cases.
Dr. Payne	Blackfriars' Skin ,,	No case.
Dr. Perry	Guy's ,,	One case.
Dr. J. J. Pringle	Middlesex ,,	One case.
Dr. Sangster	Charing Cross ,,	No case.

XANTHOMA DIABETICORUM, AND ITS RELATIONSHIP TO ORDINARY XANTHOMA.

BY DR. A. R. ROBINSON,
New York.

Paper read in the Section of Dermatology and Syphilidology at the Tenth International Congress, at Berlin.

THE name of Lichen diabeticus, Xanthoma tuberosum, or Xanthoma diabeticorum has been applied by different authors to an eruption observed by them in connection with Diabetes mellitus. As regards appearance, localization and clinical course, this eruption presents tolerably characteristic features. The number of cases hitherto published scarcely exceeds ten; and of these the reports are in almost all cases more or less incomplete. A microscopical examination of the lesions was performed only in two cases, and of the minutely detailed accounts one, that of Mr. Malcolm Morris, contains but a short description of the histological structure; besides, in certain respects a discrepancy prevails between the descriptions given by Mr. Morris and Dr. Crocker, the latter of whom examined the preparations of Mr. Morris's case.

Having had a classical example of this disease under observation for the last sixteen months, and having carefully studied the eruption in this case, both clinically and histologically, I take the liberty of submitting to you in the shortest possible manner the results of my experience. I propose to compare the pathological processes here observed with those of ordinary xanthoma, reserving for a future publication a full description of all the changes occurring and observed in the skin, as also the discussion of other interesting questions, as such an investigation of the subject would make too great a demand on our time at present.

From the cases hitherto published it is evident that the eruption first appears on the dorsal aspect of the extremities, especially of the forearm, and that almost suddenly, spreading later on to other parts of the body, either by continuous or by intermittent development of new lesions. The number of existing lesions varies in different cases from a very few to several hundreds. Most frequently they are located on the elbows and the knees, but they may also arise on other parts of the surface of the body, especially on the nates, as in my case, or on the mucous membrane of the mouth.

On the eyelids they have as yet not been observed, unless a case mentioned by Besnier may be taken for an example of the disease in question.

After having persisted for some months, or it may be years, the eruption commences to decrease, and then, generally rather suddenly, disappears. After involution it mostly leaves no trace behind, but a few of the efflorescences are followed by hypertrophic cicatrices or by atrophy of the skin.

Their appearance is not preceded by any particular subjective symptoms; but, after they are completely developed, generally some pruritus or a painful feeling and sensitiveness on pressure are noticed in the affected parts. The lesions are nodular, and vary in size from that of a small pin's head to that of a pea or larger; they are raised above the surface in general, except when they are located on the palms or the soles, and they are of firm consistence, sharply defined, conical, rounded, or of an irregular shape, and generally disseminate; sometimes, however, especially on the elbows, they are confluent. When the nodules are very small, they appear reddish in colour, but on pressure they generally exhibit a yellowish hue, lying deep down in the central portion of the lesion, while the periphery remains red. In the larger nodules the yellow colour appears well marked in the centre, while the peripheral parts retain the reddish tinge, and dilated capillaries are seen coursing over the former. The casual observer might easily be induced by the yellowish centre to assume that a suppurative process were taking place here, but an incision would reveal a dense substance like that of a fibroma.

Diabetes mellitus was found to be simultaneously present in all the unquestionable cases of this eruption, with the exception of two. In one of these latter cases diabetes preceded the eruption, and in the other Besnier formed a prognosis of future diabetes mellitus, as the patient was corpulent and his father had suffered from advanced diabetes mellitus. It was evidently considered to be merely a question of time when the patient would acquire diabetes.

The eruption differs clinically from that of ordinary xanthoma in the suddenness of its development and the rapid involution of the lesions, involution taking place sooner or later in all the cases, whereas xanthoma developes slowly and very rarely undergoes involution, no matter how few tumours be present.

The nodules in this disorder are uniformly firm and hard, whereas in xanthoma they are soft, excepting the largest tumours, which may be more or less firm, especially if they have existed for a great length of time. They do not appear in the shape of spots and streaks on the flexures of the palms and soles, as has not unfrequently been observed in ordinary xanthoma. The yellow colour may be absent, and when present it occupies only the central portion of the nodule, whereas in ordinary xanthoma the yellow hue is always present to a certain degree, and the whole lesion is, so to speak, of a uniform tint. Köbner's case may be accepted as an exception as regards the presence of the yellow colour. In none of the cases was icterus observed, whereas in Xanthoma tuberosum multiplex it occurs very frequently.

With the exception of the case described by Besnier, already referred to, diabetes mellitus was present in all the cases hitherto observed. In xanthoma, on the contrary, this condition has not been found. Where hair-follicles exist the eruption is generally confined to these parts, whereas such a distribution is not observed in xanthoma.

The eruption occurs especially on the trunk and the extremities and is not seen on the eyelids. Besnier, however, in his case, reports that there was one spot on the palpebral region. But this occurrence can scarcely be taken as indicative of a relationship between the two dermatoses, because a single flat spot in this part is hardly consistent with the otherwise uniform distribution of this disease.

Whether lesions of the mucous membrane of the mouth occur more frequently in this disorder than in xanthoma must be left for future statistics to decide.

Barlow describes (*Brit. J. D.*, No. 1, Vol. I., and *Monatsh. f. pract. Derm.*, 1888, Bd. VII., P. 1172) a case in which the eruption was similar to that of Xanthoma diabeticorum as regards shape, consistency and mode of growth, but in which pigmentation was absent. He considers the pigmentation to be merely accidental and not characteristic, and thinks the name inappropriate for this group. Nevertheless, this case may be regarded as dubious, as the eruption occurred only on the trunk, and not on the extremities or the face, and can therefore scarcely be accepted as an example of this disease, although in Addison's case also some shining, colourless nodules were present.

These then are the clinical similarities and dissimilarities between xanthoma and the so-called xanthoma diabeticorum, and the authors who have studied the affection are still divided in their opinion as to the existence or non-existence of a relationship between, or identity of, the two forms. We will now consider how far the descriptions of the structural changes observed in the two cases which were examined microscopically can assist us in the solution of this question. Besnier (Réunion clinique hebdomadaire des Médecins de l'Hôpital St. Louis, March 7, 1889) (*Annales de Derm. et Syph.*, 1889, No. V.) accepts as certain that, judged by the anatomical conditions, the disease is a xanthoma and not a xanthomoid, and that the objective characters of the cutaneous changes are similar to those of other varieties of the disease, which, he believes, vary much more than is generally supposed. Other authors consider them to be structurally different, and also think the name of xanthoma inappropriate. As regards the cutaneous alterations, so far as I am able to judge, they have been studied only in the cases of Malcolm Morris and Bristowe, and a short examination of the histological changes in these two cases must undoubtedly lead to an opposite opinion to that of Besnier, for the changes described as present in these cases do not agree with those found in Xanthoma planum or tuberosum.

In the case described by Bristowe (*Path. Trans.*, Vol. XVII., 1866) an excised nodule proved to consist of dense connective tissue permeated by globules of fat, which varied as regards number and position in the various portions that were examined. From its shortness this description is hardly sufficient to afford us much information about the intimate structure of the nodules. In the case observed by Mr. Malcolm Morris the description is somewhat more detailed, but still hardly so full as could be desired.

In the recent nodules oval and spindle-shaped cells were present in a slightly fibrous connective tissue. The central portions of the nodules stained less deeply than the edges and had a granular appearance, in which indefinite contours of cells and fibres were visible. The epidermis and the papillary layer were not affected. There was nothing to prove that the disorder had begun in the regions of the sebaceous glands, the sweat-glands, the hair-follicles, or the blood-vessels. Nor were blood-vessels seen in the specimens during life. In the corium, however, separated from the little lumps, there was a net-work with an accumulation of round and oval cells around the blood-vessels. These dilated vessels play an important part in the extension of the process in the opinion of Morris.

Crocker's report on the same case (Diseases of the Skin, 1888) does not entirely agree with the preceding. He found the changes in the epidermis insignificant, there being small prolongations of the interpapillary epithelial pegs extending downwards; some of the papillæ were enlarged, some obliterated. In the middle and upper parts of the corium there were also accumulations of round and oval cells around the blood-vessels and also in some parts between the acini of a sebaceous gland and surrounding the excretory ducts of the convolute glands. The cells forming these masses were round, oval or fusiform, and evidently subject to fibrillary transformation. Dr. Crocker did not succeed in demonstrating the degeneration characteristic of xanthoma. Many of the blood-vessels and lymph ducts were dilated. The yellow point in the nodules was not explained by the sections; on this account he presumes that this point lay in the stratum corneum, and probably had dropped out during the preparation of the sections. As will be apparent further on, I do not at all agree with Crocker in this respect. Here I will only remark that the above description does not confirm Besnier's statement that the cutaneous changes are similar to those which occur in ordinary xanthoma, but rather supports Crocker's statement—"that the microscopical features are not those characteristic of and constantly found in ordinary xanthoma."

I shall now proceed to relate the history of the case which I have myself observed, and to describe the results of my histological studies of several nodules. From these it will be evident that the eruption was a typical case of Xanthoma diabeticorum, and that there could be no question regarding the diagnosis, although—not being quite conversant with the literature of the subject—I had not recognized the case at once when it first came under my observation.

John H., aged 31 years, born in the United States. No case of skin disease had occurred in his parents, who had both been considered to be in good health. His father died of inflammation of the lungs in his 67th year, and his mother of some disorder of the abdomen at 58. He had two brothers and two sisters; one brother died young of scarlet fever, the other is healthy. Both sisters are married, and likewise in good health. My patient had the usual infectious diseases of childhood (measles, scarlatina, etc.), but since then, he says, he has "not been ill a day." He is tall, well-built, and, in proportion to his muscular system, has perhaps a little too much adipose tissue. The examination of the lungs and heart shows both to be normal. The liver is also normal, as regards size, and the patient affirms that he never had jaundice. The colour of his skin is also normal. He enjoys an excellent appetite, and his bowels move regularly. He has never suffered from indigestion, nor has he ever had a so-called bilious attack. His genital organs are normal, and sexual power and appetite are not in the least diminished. He has been constantly very thirsty for some time back, and believes he has drunk about a gallon of water every twenty-four hours. He has felt so well, however, on the whole, that, but for the eruption, he would not have believed that he was ill, and was not aware of it until I examined him in April, 1889, and informed him that he had diabetes mellitus. He had never had boils.

In January 1889 he first observed the eruption on his skin. At first it appeared on the nates and the lumbar region, and amounted only to twenty or thirty lesions. From this time onward the efflorescences gradually increased in number. They first became more numerous on the dorsal aspect of the forearm, especially around the elbows, then on the extensor surface of the thigh, then on the calf, the shin, and finally in a limited number on all the other parts of the cutaneous surface, with the exception of the scalp. The mucous membrane of the mouth remained free, and there were also no efflorescences on the penis. Between the root of the nose and the inner end of the left eye-brow there was a single papular lesion of the size of a pin's head. Also on the palms and soles there were a few indistinct lesions, which were only perceptible when submitted to pressure by the finger, and were even then hardly discoverable. When the eruption was fully developed, as regards extent—a process which occupied about four months from the commencement of the disease—there existed several hundreds of papules, chiefly located on the nates and lumbar regions, on the dorsal surface of the upper arm, on the anterior surface of the legs, and on the calves. There were also several lesions dispersed over the rest of the trunk and the extremities.

The commencement of the eruption was not preceded by any subjective symptoms whatever; but when it was completely developed, touching the skin produced a burning sensation which lasted for several hours.

Sometimes the skin itched very much, and sometimes but little. The patient slept well, but he felt pain on turning round in bed, which occasionally made him restless. After any exertion he easily became tired, especially in his legs.

Many of the lesions are arranged in groups, but, in general, it may be stated that a special distribution in groups or lines was not to be observed. The grouping was most marked on the elbows and buttocks; *plaques* having arisen in the former locality from the confluence of numerous efflorescences. The lesions varied in size from that of a pin's head to that of a large pea; were all firm, sharply defined, prominent above the surface, and evidently located in the corium. Most of them were connected with a hair-follicle. The smaller lesions, of the size of a pin's head, were conical or acuminate, and red, in consequence of capillary hyperæmia. The redness disappeared temporarily under pressure, and the nodules then appeared yellowish in the centre, with a slight redness in the periphery. In all these small, and therefore recent lesions, the yellow colour was either indistinct or invisible, but it could be produced by means of pressure.

The larger lesions were more elevated and their shape was not so conical, but exhibited at the top a smooth, even or uneven surface, being sometimes somewhat rounded off, sometimes obtuse or quite flattened, but in no case were they similar to the non-elevated, flat lesions of xanthoma planum, as they were always prominent above the general surface. The unevenness of the surface in some of them was caused by small furrows traversing the nodules and containing capillary vessels. From the number of these furrows and the resulting division of the surface into areas, especially as soon as the lesion reached the size of a pea (being then, correctly speaking, a tubercle), the impression was imparted that they were composed of several small coalesced nodules, each having a small yellowish point in its centre and a reddish periphery.

The yellow colour of the larger and smaller lesions first became apparent when the redness was removed by pressure; in most of them, however, the central part was yellowish, except where they were traversed by the above-mentioned furrows with their blood-vessels. The peculiar yellow colour of many of the lesions with their red periphery presented an appearance similar to that of a suppurative process, but the tumours were always of a tense consistency, as was evident on touching or incising them.

This deceptive appearance is excellently represented in the illustrations ("Int. Atlas of Rare Skin Diseases," Plate XIII. Hamburg, 1890. Leopold Voss), while the considerably magnified lesions in the other illustrations exhibit the furrows and the single tubercles which are apparently produced by the coalescence of two or more nodules. The smallest and most recently formed efflorescences are very similar as regards colour, shape and localization, to a follicular eczema in an early stage, but the redness is less bright and the accumulation of serum is absent.

The urine was examined in April, May and June last year. In April it contained no albumin, but 5 per cent. of sugar was present. I prescribed milk diet, meat, and Graham's bread, and seven drops of Fowler's solution three times a day. In the course of three weeks the skin disease began to fade, and from that time no new efflorescences formed. In November the eruption had entirely disappeared, only the skin remained a little red for some time in those parts where the larger lesions had existed. The patient says the lesion in the vicinity of the eye-brow was the first to disappear, but it is probable that he only believed it to be the first, because it was isolated and conspicuous.

On May 29th, while he was still on restricted diet, and at a time when the eruption was beginning to fade, the urine was examined by Dr. P. C. Cole, who reports as follows:—Colour, fawn-coloured; odour, faint and not characteristic; reaction, highly acid; specific gravity, 1·034; no albumin; sugar, 0·054; quantity and appearance of the sediment, about $\frac{1}{30}$, light fawn-coloured; crystals, urates and uric acid. The patient was no longer kept on restricted diet, and on June 2nd his urine was again examined by Dr. Cole with the following result:—Colour, straw-yellow; no odour; reaction, slightly acid; specific gravity, 1·036; no albumin; sugar, 5 per cent.; quantity and general appearance of the sediment, small and bright; urates.

From this examination it appears that the quantity of the sugar must have been very large when the patient was not placed on restricted diet, but nevertheless the eruption continued to fade by degrees. After this time he was again induced to submit to a stricter regimen until November, at which time the eruption had entirely disappeared. The only drug he had to take was again Fowler's solution, which he has continued taking until January this year. After the eruption had disappeared I again examined the urine, and did not find any sugar.

In February of this year, while he was on unrestricted diet and not taking arsenic, the eruption again appeared, this time on the extensor surface of the forearm, where a considerable number of lesions had arisen, but only here and nowhere else on the whole body. This new attack was neither preceded nor followed by any subjective symptoms. The diet was restricted as on former occasions, and arsenic was given as before, and within a month the eruption again disappeared. He took arsenic for two months longer.

In July no eruption whatever is to be seen on the whole body. On careful examination, the former site of many lesions, especially on the buttocks, can readily be detected by the presence of a slightly hypertrophic cicatricial tissue, while in other parts the skin appears perfectly normal.

An examination of the urine, performed by Dr. Cole, yielded the following result:—Colour, amber; no odour; reaction, acid; specific gravity, 1·033; sugar, 2·5 per cent.; quantity and general appearance of the sediment, $\frac{1}{24}$ by volume, pale colour. Oxalic acid in large quantity.

Histology.—Eight efflorescences, four small ones and four large ones, were taken from various parts, and after having been hardened in alcohol, Müller's solution, osmic acid or solution of chloride of gold, were examined microscopically. Those preparations which had been hardened in gold were, so to say, failures; the best ones were those treated with Müller's solution. Most of the sections were first examined in glycerine and then stained with various reagents, indulin, vesuvin, borax-carmine, gentian violet, hæmatoxyline and eosine, and methylene blue. The double staining with borax-carmine and hæmatoxyline and eosine, indulin and vesuvin, was frequently employed, and some excellent preparations were obtained. Subsequently they were mounted and preserved in glycerine or Canada balsam in the usual manner.

Section of a recent Nodule of the size of a pin's head situated in the region of a Hair-follicle.—Stratum corneum, normal; granular layer present, normal; stratum spinosum of normal appearance, with the exception of a casually inflated cell; papillary layer of the corium not altered in size; the capillaries exhibit throughout the whole section a dilated condition with endothelial increase and perivascular accumulation of cells; between the perivascular region and the stratum spinosum there are a few lymph corpuscles, otherwise this region is normal. Corium:—The central portion of the section, which includes the site of the neoplasm, exhibits the connective tissue bundles apparently in a normal condition, but separated into smaller bundles by cells lying in the interfascicular lymphatic spaces. This accumulation of cells is most considerable in the middle part of the corium, and consists of cells which, as regards form, size and appearance, are different from one another, being partly similar to ordinary lymphatic corpuscles, partly oval with a well-marked nucleus, partly spindle-shaped, while others again are of an epithelioid character. These various forms may be seen lying in intimate juxtaposition with one another in the same lymphatic spaces. The large epithelium-like cells are more or less grouped together; they have a distinct nucleus and a large cellular body of decidedly granular appearance. In some places the connective tissue fibre is reduced to but a few fibres separating these new elements. As soon as one approaches the periphery of the area containing the cells, these appear to consist either of lymphatic bodies or of small fusiform, enlarged connective tissue corpuscles. The nodule was not sharply circumscribed, as the cellular infiltration and the accumulation of cells ceased by degrees.

Outside this aggregation of cells there existed a dilatation of the blood-vessels and a moderate infiltration with round cells. In a middle section of the same tumour a hair with its normal root-sheath occupied the centre. In the middle of the corium, on one side of the hair and lying near to it, in the vicinity of a small sebaceous gland, and occupying about an equal area, there was a more or less sharply marked region containing connective tissue with bundles crossing each other in all directions, and a large number of variously shaped cells. In the centre of this area there appeared a spot of degenerated tissue, without definite form or structure, more transparent than the surrounding tissue, like tissue undergoing fatty degeneration, and which did not stain with any of the reagents. Outside this part and especially in its outer portions, there was an accumulation of large, sharply-defined cells, with large nucleolar bodies and nuclei. The latter took stains, while the nucleolar bodies were of a fatty, granular appearance; and the whole agreed with the cells known as xanthoma-cells. Nearer to the hair-follicle were more rounded and spindle-shaped cells, not like epithelial cells, which stained darkly. Between the central degenerated area and the layer of xanthoma-cells a number of indistinctly marked cells, similar to xanthoma or simple nuclei, were present. Some of the xanthoma-like cells contained pigment. The xanthoma-like cells were either collected together in groups or separated by small bundles of connective tissue. Outside this region the lymphatic ducts contained in various places collections of these uniform, round, fusiform or epithelioid cells. On the other side of the hair-follicle there was a less marked area of degenerated tissue and xanthoma-like cells, while the accumulation of round and spindle-shaped cells extended over the whole depth of the corium.

Outside this perifollicular patch the blood-vessels were, for a certain distance, dilated and surrounded by ordinary round-cell infiltration. In a horizontal, subpapillary vessel a dense collection of blood corpuscles, coloured dark brown, was seen, near to the hair; a similar pigmentation was present in some of the papillary vessels, and in a few of those situated in the corium. Everywhere unmistakable signs of proliferation of the connective tissue corpuscles and round-cell infiltration were present. In one section of about the same size, traversed by a hair, a similar condition was observed round the hair, only the area of fatty degenerated and amorphous tissue was much larger, as was also the round-cell infiltration beyond it. In this tumour, not far removed from the hair, there had formed one of those fatty degenerated patches; a blood-vessel, around which some round and fusiform cells were clustered, traversed its centre. Beyond it was the zone of shapeless degenerated tissue, and, again, on the other side of this, an irregular collection of xanthoma-like cells and round and fusiform corpuscles. The blood-vessels of the upper corium, at some distance from the tumour, and separated from it by tissue of normal appearance, were dilated and surrounded by exuberant round-cell infiltration.

In another section, in which two hair-follicles were contained, the tumour formation occupied the same position in the corium, being especially well defined towards the base, and consisting almost exclusively of xanthoma-like cells, lying in a sparse connective tissue. In some places a commencing degeneration both of the cells and the connective tissue was apparent. A blood-vessel, containing deeply pigmented and partially degenerated white blood corpuscles, lay near the centre of the tumour. Many of the xanthoma-like cells both in the central portion of the tumour and its periphery were pigmented. At the base and the edge of the tumour round and fusiform corpuscles were present. Outside these, and especially in the horizontal subpapillary layer, a distinct dilatation of the blood-vessels and a marked round-cell infiltration existed.

The larger tumours contained the same elements. In proportion as the nodules increase in size, so is the surrounding tissue infiltrated with round, fusiform and xanthoma-like cells, which are deposited in the lymphatic spaces. The patches of degenerated, disintegrated tissue increase in size through the degeneration of all the elements present, to such a degree that in the centre of such a patch nothing is to be seen but a formless, granular mass, traversed here and there by elastic fibres.

I need not further describe the xanthoma-like cells, and will only mention that they contain one or more nuclei, and that the bright ring described by Touton as lying outside the nuclei is not generally present.

The tumours have in some parts a distinctly marked acinous structure. The xanthoma-cells seem to occupy the whole area in many places, while in others they are divided into smaller groups or form groups and columns with larger or smaller bundles of connective tissue, or else they lie isolated in the net-work of the tissue. The tissue outside the tumour region always contains dilated blood-vessels with a perivascular infiltration of round cells. The spinous layer appeared in all cases devoid of pigment, whereas this was present, although in small quantities, in some lymphatic spaces and in many blood-vessels.

From this description, though incomplete, of the structure of a nodule the size of a pin's head, so much at least is evident,—that the characteristic elements forming the tumour were cells similar to those of xanthoma; that marked changes in the blood-vessels and infiltration with round cells, both inside and out, were present for a short distance; and that a proliferation of the connective tissue cells had also taken place. The tumours examined had a perifollicular origin, and extended along the lymphatic ducts and the perivascular regions. The patches of amorphous tissue arose from breaking down of the xanthoma-like cells and other elements, and agreed as regards appearance and structure with the cysts of De Vincentiis, which he found in a case of xanthoma, and which he considered to be due to a traumatic origin. In these tumours, as I shall show later on, this occurrence signifies merely a degeneration of the tumour elements, the result of disturbed nutrition, independently of external influence. As a peculiar condition observed both in the larger and in the smaller tumours, we must especially mention the reddish-brown pigmentation of the white blood corpuscles within the blood-vessels, whilst the surrounding tissue was free from pigmentation.

Structure of a large Papule.—Stratum corneum normal; epithelial pegs less distinct, and the lowest layers of the epithelial cells pigmented in some parts. In the corium the tumour projected from the epidermis towards the subcutaneous tissue; yet the capillary blood-vessels of the neoplasm present the same conditions as those found in the smaller tumours; and so do those in the corium. Dilatation and perivascular infiltration with round cells are also present. The tumour is not sharply defined, and the blood-vessels are in many places filled throughout with deeply pigmented white blood corpuscles. The tumour itself consists of xanthoma-cells, infiltrating round cells, round and fusiform cells and connective tissue. The epithelioid or xanthoma-like cells are found everywhere, and form either large masses or small groups, dense columns or single rows, or they are dispersed as single cells in the interfascicular lymph canals. A variable number of large or small patches, similar in structure to cysts, as has already been described, was distributed over the whole tumour. The degeneration is farthest advanced in the central portion of the tumour, and for long distances nothing is to be discovered but elastic fibres and formless matter. Some of the xanthoma-cells contain pigment. At the periphery of the tumour we find round-cell infiltration and proliferation of the connective tissue cells in a very marked degree, and the large xanthoma-cells lying in the lymphatic ducts appear gradually to have arisen from the endothelial cells. The whole section accordingly exhibits an infiltration of round cells as a marked feature of the process.

I have not observed any new formation of blood-vessels, but there existed throughout the whole extent of the nodule a contraction of their lumen through changes in the endothelium and accumulation of cells in the adventitia. Nor have I observed any signs of formation of connective tissue; on the contrary, there was rather a destruction of it, and even to a considerable amount in the central portions of the tumour.

In some of the tumours, as has been already mentioned, the normal connective tissue was supplanted later on by cicatricial tissue.

For those who are acquainted with the structure of the ordinary xanthoma as described by De Vincentiis, Chambard, Touton and others, the almost identical nature of the two kinds of neoplasm will be indubitable, and they will therefore recognize also the appropriateness of the term of "xanthoma" for these tumours. The intensity of the process is far more considerable in this disease than in ordinary xanthoma, and the circulation in the parts affected is much more rapidly disturbed. On this account I would attribute to this same circumstance the fatty degeneration so frequently observed. From the circumstance that the course of the eruption, as well as its distribution and localization, displays varieties, it is evident that two different etiological factors may underlie the two processes; it is therefore correct to employ the explanatory word "diabeticorum," at least until we have accurate information as to the exact cause. I should look upon the tumour as inflammatory; produced by some irritating agent. If it should prove possible to refer either this tumour or the elements of ordinary xanthoma to the connective tissue corpuscles or endothelial cells as described by Touton and others, then an origin from "latent elements," in Cohnheim's sense of the word, would not be possible.

In a future paper it is proposed to discuss in detail the origin of the cells, and the inflammatory or non-inflammatory nature of the process. Here I will only state that I am inclined to agree with Chambard's as opposed to Touton's opinion.

In the sections of the case of xanthoma tuberosum which I here lay before you, and in which the eruption was confined exclusively to the elbow, I discovered throughout a clearly marked new formation of connective tissue in the whole tumour, and nowhere any area of fatty tissue or amorphous matter as described above.

OBSERVATIONS ON TWO CASES OF LUPUS TREATED BY KOCH'S TUBERCULIN.

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Divergence of professional opinion on the value of tuberculin in the treatment of Lupus appears to be the stage now reached in the experimental investigation of Koch's discovery. The initial enthusiastic optimism having subsided, there seems, as is usual, a danger of the opposed error being too strongly urged, and of an unscientific and uninquiring pessimism taking possession of the medical mind.

It is to be feared that the settlement of the question of the rightful position of the remedy will not be helped by incomplete trials upon which are based statistics such as those arrived at by the Commission of Physicians of the St. Louis Hospital and published in the *British Journal of Dermatology* for March 1891. A casual examination of the cases tabulated shows that the average number of injections received by each case was 6·4, and that the maximum dose attained was 8 milligrammes. In looking at the details of these injections the reader is impelled to ask the question—What can be the evidential value of results such as the following?—

Case 1.—One injection of 0·002 is given, and the result is recorded as nil.

Case 2.—Two injections of 0·002 at ten days' interval. Result nil.

Case 11.—Two injections (½ and 1 millig.). Result nil.

Case 12.—The absence of reaction to five small injections (0·001—0·002) is noted. Result nil.

Similarly Cases 13 and 37, not to speak of others, should be elided from the list.

Analyses of a number of cases perseveringly treated by skilled dermatologists with steadily increased doses of the remedy are of the highest value in settling the real position of tuberculin as a remedial agent, but enough has been said to show that the research by the Commission has not been carried far enough. It is to be doubted if the remedy has been sufficiently pushed in any one of the cases tabulated; for, without expressing any opinion on the proper initial dose of the fluid in lupus, it must be noted that in not a single case of the series did the maximum dose reach that indicated by Koch as the usual minimum dose in the particular disease under observation. It is frequently necessary, on account of the violence of reaction to a given dose, to reduce the quantity injected, as in the case of John L., presently to be described; and this appears to be preferable to the method of absolutely stopping the treatment and recording the result as nil. Moreover, I have a case under treatment in which a dose of two decigrammes failed to evoke reaction, yet the succeeding dose of two and a half milligrammes produced a temperature of 103° F. Certainly the six cases particularized are unworthy of serious consideration, and should not be included in a report upon which is based statistics which receive an authoritative imprimatur. Excluding these, the synopsis would read:—"*Six* results nil; and eighteen very slightly improved." The cogency of the negative answer to the question, "Is it legitimate to persevere in the use of the lymph?" given by the Commission would then be even less apparent than it is now.

It has appeared to me that an observation made early in the history of the remedy, viz., that it is the cases of superficial lupus which are most benefited, contains much truth, and may help to explain the discrepancies of various observers. The two cases following are types of (I.) deeply seated lupus and (II.) superficially placed lupus.

John L., 26.—Lupus of the cheek and ear of eight years' duration. He presents a family history of tubercular disease, his father having died from phthisis, and a sister having suffered from joint disease. His lupus began as a chronic abscess in the parotid region three months after a blow; the abscess was poulticed and left a wound, from which the lupus originated and spread. It may be noted with regard to this mode of onset, that three patients admitted to the hospital on the same day gave similar histories. The patch of lupus now involves the side of the cheek, the whole of the pinna, and extends downwards to the submental region. It is ulcerating, and has destroyed the lobule and largely the cartilage of the right ear, on which is much crusting; the disease extends into the meatus. The affected skin has cicatrized in front of the ear over an area of about an inch wide. The anterior margin of the diseased patch shows tubercles of active, advancing lupus, while a narrow band of the same terminates below the chin in a chronic abscess.

Treatment by the injection of tuberculin was commenced on December 11th and continued for eighty-six days. Forty injections were given, the dose rising progressively from two milligrammes (0·002) to three decigrammes (0·300). The general character presented by the case was violence of the general and local reactions. The first two injections (0·002) produced a temperature of 40·4° C., intense localized pain in the side and behind the sternum, dyspnœa, cough and scattered crepitant râles, with dulness at left apex. The local reaction, too, was extremely well marked, the exudation from the deep lupoid foci being sufficiently copious to be mopped up with hydrophile cotton. It was thought wise to reduce the third injection to 0·001. Very little general reaction occurred after the five-milligramme dose had been passed, although some local exudation took place up to the last and largest dose.

Through January and February constitutional treatment by iodide of iron and cod-liver oil was given; while during the height of the reaction of the early injections a diuretic mixture appeared to be beneficial.

On March 11th, the local condition cannot be said to be greatly altered. The margin of the ear has in places cicatrized; but there are still oozing and crusting patches of deep ulceration. The anterior active margin of the lupus has not advanced, but the tubercles and crusts are not much diminished.

The chronic abscess in the submental region has become an open ulcer. Speaking generally, there is probably a slight improvement. On this day, treatment by cantharidinate of potassium and caustics was substituted for that by tuberculin.

In this case we have deep lupoid lesions of eight years' duration, in a cachectic youth, reacting violently to a persevering and prolonged use of increasing doses of tuberculin without manifest amendment of the disease. In the next case we have a mild case of the disorder in a child, the disease being much more superficial, of lesser extent, and lesser duration. The reactions, both local and general, were slightly marked, yet the case terminated in what appeared at the time to be a satisfactory and complete cure.

Emma P., 3½ years.—Lupus began at the age of two, and presents a patch occupying the centre of the left cheek, partly cicatrized and partly crusted, while owing to the unsightly webbed irregularity of the scar the crusts are firmly adherent. There is also on the *dorsum* of the hand of the same side a secondary patch, doubtless due to auto-infection, for the child is seen to have a habit of sleeping with this part of the hand curled under and applied to the cheek.

Treatment extended from December 12th to February 10th, and consisted of nineteen injections, beginning with half a milligramme, and increasing till a dose of thirty-five milligrammes was reached.

The general character of the reactions, both local and general, was mild; the highest temperature reached was 39° C. At the beginning of February all crusts had fallen, leaving, on the facial lesion, reticulated and irregular projections from the scar, which, later on, were planed down with a scalpel.

When discharged on February 11th, both patches of lupus were smooth, pale red in colour, homogeneous in appearance, and entirely free from nodules either in the cicatrix or in the margin. No lupoid tissue was visible to the eye, while the result called forth a spontaneous letter of thanks from the parents.

The child was again inspected on March 16th. The scar on the back of the hand is paler, and no suspicion of lupus is present; but the periphery of the patch on the cheek is redder than on February 11th, and at one or two points are seen spots which suggest the return of lupous foci.

PRÉCIS.

THE PROTOZOA AS EXCITORS OF DISEASE. DR. L. PFEIFFER. (*Correspondenzblatt d. allg. ärztl. Ver. von Thüringen*, 1890, No. 3.)

The author passes in review the various forms of protozoa which prey upon the cellules of man and other animals. He divides them into three classes:— 1. Parasites which cause merely locally limited epithelium infection without further spread into other elementary cells (coccidium, klossia, and eimeria). 2. Sporidia (myxo-, sarko-, and microsporidia) which not only infect the epithelial cells but also the blood cells, and which may in this way give rise to new infections in remote parts. 3. Obligate blood parasites (herpetomones Lewisii, a flagellate found in the blood of the hamster; plasmodia and trypanosomata found in malaria; various forms of hæmogregarinæ).

These forms mostly occur in the higher animals and in plants (in which the plasmodia may cause epithelial hypertrophy, galls), but those which specially interest the dermatologist are a series of parasites which lie outside these three groups, and which, owing to a deficient knowledge of their biology and morphology, have not been yet properly located in the zoological schema.

These are the bodies which are found in *epithelioma molluscum* ("molluscum contagiosum") and in the contents of various vesicular eruptions. In examining this contagious epithelioma in fowls, he found the cells of the rete Malpighii in the nodules hypertrophic and filled with numerous extraneous bodies which had pushed the nucleus on to the cell wall. Staining with hæmatoxylin and picric acid coloured the parasites yellow, and the rest of the epithelium blue. Acid fuchsin and methylene blue showed them in still more marked contrast, and they could be cleanly isolated by digesting away the rete by pepsin. No spores were seen, nor any of the pseudo-navicellæ described by Neisser in the human affection, and on this account he would not assign these parasites to the coccidia group. In other respects his observations coincide with those of Neisser. They may probably be compared with the psorospermidæ described by Darier and Wickham in the *Psorospermose folliculaire végétante*, and *Paget's Disease of the Nipple*. In the contents of fresh vesicles of *herpes zoster* are found "amœboid" bodies which have fallen out of the epithelial cells, and strikingly large globular cells with nucleus and actively motile ektosark. Inside these cells a division into many parts (sporulation?) may be frequently observed; and again there are, finally, large epithelial cells which are infected by "sporenests" or globule cells. All these bodies, of various forms and sizes, are to be found in the exudation of variola, vaccinia, ovine, varicella, and pemphigus. The author inclines to the belief that they belong to the rhizopods rather than to the coccidia. They are not found in the blood of the affected patients, but he assumes that the blood must be the channel of infection. In teazed-out preparations of melanosarcoma he has also found similar parasites. As to the importance of these discoveries he maintains the greatest reserve, and appeals to the workers in this special branch of zoology to turn their attention to these formations, and assign them a definite place in the zoological classification. As the protozoa now take an important place in the pathology of man and animals, it is much to be desired that greater attention should also be paid to them on the part of medical workers.

More recent investigators are, however, by no means so disposed to regard these bodies as being extraneous parasites. Török and Tommasoli (*Monatshefte f. prakt. Dermatologie*, Bd. X. No. 4) investigated the peculiar corpuscles in (molluscum) epithelioma contagiosum, which Neisser asserts to be of an amœboid nature. They have no doubt most striking morphological resemblance to certain well-known parasitic elements, such as the coccidium of the ascaris lumbricoides and of the rabbit, but the proofs which have been offered as to their extraneous origin and animal nature have been by no means conclusive.

Tommasoli (1886–7) had already experimented by inoculating small portions which he had excised from various patients (cases in which the contagiousness of the affection had been clinically proved) into the face of one of the patients, under the skin and into the peritoneal cavity of rabbits, and into the combs of fowls, but with perfectly negative results. Some sporigenous bacilli and a form of staphylococcus, which were obtained by the cultivation of the raw material on various nutrient media, were similarly inoculated, but without success. Microscopic examination of portions of the combs which were excised at various periods showed that the molluscum cells were gradually broken up, and that in twenty-one days they had completely disappeared; but when subjected to artificial digestion or macerated in sodium chloride solution for five days, they were found lying among the débris unaltered.

In conjunction with Török he made a further series of observations in Unna's laboratory. Freshly excised portions of molluscum tumours were teazed out or cut into sections and examined in a warm chamber and in the "hanging drop," but although examined continuously, sometimes for twenty consecutive hours, no appearance whatever of life (gemmation, division, growth) could be discovered. When subjected to the action of concentrated chemical reagents (acetic, formic, sulphuric, nitric and hydrochloric acids, caustic potash, ammonia), and strong solutions (salt, ferrocyanide of potassium, permanganate of potassium), these so-called amœbæ of the molluscum offered the most extraordinary resistance, a resistance which resembled most nearly that presented by the colloid substances, and which showed that they were certainly not living organisms. For example, they remained almost unaltered after an exposure to concentrated sulphuric acid and nitric acid for six days, which is hardly consistent with the possibility of the fission processes which the class of sporozoa all undergo. Similar experiments made upon veritable sporozoa (psorospermata from the liver and intestines of rabbits) showed that the stronger reagents (except ammonia) all caused their more or less rapid destruction, or completely altered their whole structure.

The authors come to the conclusion, based upon these reactions and their microscopical examinations, that these so-called parasites are really nothing but degeneration products which in their chemical properties closely resemble the colloid substance. Further explanations are also given of the granular appearance presented by some of the bodies and of the presence of vacuoles, which go to prove that the assumption of the parasitic nature of the corpuscles is unnecessary to account for the microscopic appearances, and are probably due to the rapid formation of horny hulls to the cells, and of the artificial effects of preservative processes on the tissues.

THE ÆTIOLOGY OF HERPES. The Spread of Herpes along the Cutaneous Distribution of the Arteries, and its Relation to the Acute Exanthems. DR. L. PFEIFFER. (*Jena, Gustav. Fischer.*)

Dr. Pfeiffer describes 117 cases of herpes which were brought together in a collective investigation undertaken by the Thuringian Medical Society. In his view the exanthem follows the arteries rather than the nerves, a feature especially noticeable in herpes pectoralis. He found that some feverish symptoms almost always preceded the outbreak; neuralgia was frequent, and in a few cases muscular atrophy and disturbances of sensation were observed. An examination of the relation between herpes and the acute exanthemata leads the author to oppose the generally received trophoneurotic theory of its origin, and to support the view that the primary cause is the stoppage of the capillaries by organisms which are circulating with the blood. [These views are, however, not supported by any actual histological or bacteriological proofs.] Culture experiments of the contents of the vesicles in five cases only showed the presence of some secondary intruders, inoculation with which, like inoculation with fresh lymph from zoster vesicles, gave negative results. The rete layers, however, are said to contain some previously undescribed cells, which closely resemble *Mastzellen*, but which are not identical with them, and are found also in variola, ovine, vaccine and varicella, but not in pemphigus, erythema multiforme, cheiropomphylyx, &c. He has found similar cell forms in the epithelium infection of the contagious epithelioma of birds and in the kidneys of various snails. He comes to the conclusion that "zoster is an infectious disease, which produces its local phenomena through the medium of the blood circulatory system, and that the changes in the spinal ganglia, which have been so often described, are not the cause but the consequence of the herpetic process." [Unfortunately the author does not attempt to explain the reversal of action which here takes place.] (*Archiv f. Derm. u. Syphilis*, Hft. 6, 1890.)

THE TREATMENT OF SYPHILIS OF THE NERVOUS SYSTEM. DR. ALTHAUS. (Reprint.)

In this paper, which was read at the Berlin International Congress, Dr. Althaus adds one more method to the already long and ever increasing list of the methods of treating syphilis. His remarks are directed more particularly to the treatment of nerve syphilis, but apply equally to the treatment of the disease in its primary and secondary stages. He favours early excision of the primary sore as a means of attenuating the action of the virus, but urges the early and continuous treatment by mercury. He fully agrees with Henry Lee and Fournier, that if cases are treated thoroughly and carefully from the first by means of mercury the danger of serious after lesions is very slight, and the danger from the drug itself is nil. It is the cases where the early treatment is neglected, in which the system's powers of resistance to unusual occurrences and accidents of life are so diminished that anxiety and excitement, exposure to wet and cold, fatigues and privations, injuries to the head, excesses in Baccho et Venere, and even hard intellectual work, act readily as exciting causes to the outbreak of various forms of nerve antecedents. Any neurotic tendency greatly increases this risk.

In order to assist the specific action of the mercury a subsequent tonic treatment (rest, holiday, phosphorus, quinine and arsenic; Carlsbad salts and podophyllin; hot and cold sponging; freedom from all excitement and excess) is essential.

It is never too late to hope for beneficial results from treatment, even where secondary lesions, the healing of which is not to be expected, have complicated the truly specific lesions, but the treatment in such cases must necessarily be long continued, even after all symptoms have apparently disappeared. Althaus does not in the least agree with Fournier that mercury is apt to lose its effect when administered for a certain length of time (two to three months), but thinks on the contrary that it is apt to gain in power. Indeed his present treatment by prolonged courses of mercury has given him infinitely better results than those which he previously obtained by the intermittent plan of treatment.

In the secondary stage mercury appears to answer best if the gums be kept slightly sore for some months in succession, but in the later stages, where the nervous system is apt to be involved, it is preferable to avoid this altogether, and when a rapid action on the system is necessary to employ small doses of mercury, combined with large doses of iodide of potassium given for a short time.

Of all the methods of administering the metal, the author prefers injection, as being much more powerful (one injection equal to ten or twelve inunctions) (!), and less liable to allow of relapses. The soluble preparations are too quickly eliminated, the insoluble are apt to cause pain, swellings, abscesses, sudden and violent stomatitis and dysentery, which cannot be stayed so long as the store of the drug is imbedded in the flesh. In order to steer clear of the two extremes he has devised a non-irritating insoluble preparation, made by rubbing up one part of metallic mercury with four parts of the purest lanolin and five parts of a two per cent. carbolic oil until a perfectly homogeneous grey cream is formed, in which the globules of the metal cannot be distinguished by the microscope. This mixture presents the following advantages: it can be accurately measured, which the other suspensions (calomel, yellow oxide, Lang's grey oil) cannot, it will remain stable for months, and, owing probably to the anæsthetic action of the carbolic acid it causes no pain, but merely a pleasant warm feeling in the part, which lasts for a few minutes. It causes no hardening or abscesses, and requires no further antiseptic precautions for its use than the scrupulous cleanliness of the syringe. Five minims are injected into the glutæi once a week. This quantity contains half a grain of mercury, but as some of the substance adheres to the needle and tube, the real dose amounts to two-fifths of a grain. In ill-nourished and anæmic people, and in women, this quantity may be diminished. In order to retain it longer in the system, and to accentuate its action, iodide of soda or potassium may be administered at the same time. Its action in removing purely syphilitic lesions of both the secondary and tertiary stages is very marked, even when they are of old standing, and at the same time a tonic influence is exerted, due, no doubt, to the neutralization of the toxines which previously infested the system. The condition of the kidneys must be investigated before beginning the treatment, and if any albuminuria is present the greatest caution should be exercised.

Iodide of potassium is indispensable where it is necessary to rapidly combat and arrest the progress of nerve syphilis, but the author has not found that it possesses actually curative properties. As regards dose, he rarely gives less than 20 or more than 40 grains. The sodium salt is often more easily borne than the potassium.

From other proposed remedies (gold, sarsaparilla, stillingia and others) he has observed no truly specific effect, but a tonic treatment is an adjunct of the greatest importance. When the patient is otherwise fairly healthy, the mercury alone is the best tonic, but, when weakly, quinine, cod-liver oil, and malt with hypophosphites, pepsine and pancreatine, with nourishing diet, are of the greatest value.

For the secondary ordinary lesions there is, of course, no specific remedy, but the application of the constant current often helps to promote nutrition where nerve tissue has been simply damaged. A large electrode placed over the epigastrium, and a smaller one applied to various other spots, with a current of one to five milleampères for ten to fifteen minutes is the most useful method of application, the direction of the current being occasionally reversed. This is most useful in cephalalgia and neuralgia, and, acting as a sedative, improves sleep. In affections of the cord, Faradization is sometimes more useful than the constant current. In brain syphilis the application of cold by means of Leiter's tubes often proves of more service than medicinal sedatives, though these may be tried in severe cases.

PEROXIDE OF HYDROGEN FOR CLEANING THE HANDS.

Noble (*Med. and Surg. Reporter*, Feb. 28, 1891) recommends the use of a solution of peroxide of hydrogen of full strength as a good addition to the methods already used. He says he has used it for some months in preparing for abdominal sections. He has employed it whenever the skin about his nails has not been in good condition; and he says it is remarkable to see how it will soften horny skin at the side of the nail, and disintegrate débris in the subungual space. He employs it after first cleansing the hands with soap, hot water and a nail-brush. He finds it to be perfectly reliable in removing foul odours and stains from the hands produced by contact with decomposing pus, discharges from cancer, and other septic fluids.

LEPROSY AND THE KOCH TREATMENT. PHINEAS S. ABRAHAM. (*Journal of the Leprosy Investigation Committee*, February, 1891.)

Dr. Abraham gives an account of a case of leprosy treated by him in the London Hospital by injections of Koch's fluid for tuberculosis. The patient was a lady, aged 32, born in Ireland, and taken to India when four years old. She returned from India in 1878, having been vaccinated a year previously in India by an English doctor. No symptoms of leprosy appeared until she had been in England three years. Her fourth and fifth child, born since the first symptoms appeared, are still "quite healthy."

The case is described as being apparently better before commencing Koch's treatment than it was five years previously. There were extensive discolouration and mottling on body and limbs; most of the raised tubers had disappeared.

Opacities were seen on the cornea, especially of the right eye. There were no signs of lung or other internal disease. The patient said that "distinct improvement in her general condition, and in her skin, started three years ago, when she began to take chaulmoogra oil."

"A tuber was incised and found to be loaded with typical bacilli."

First injection with Koch's fluid—grm. 0·001.

Temperature three hours afterwards rose to 99·7°, fell to 97°, and rose again to 100·8°. No apparent local changes.

Second injection (0·003) on the third day was followed by a gradual fall of temperature, profuse perspiration and general malaise.

The third injection (0·005) led to little rise of temperature, but was followed by appearance of distinct swellings, resembling "nodes," one in front of each *tibia*. Several tubercles, unobserved before, appeared on forearms, near one knee, and on the face; and some of the older tuberosities became swollen. No sweating or feeling of sickness.

The highest temperature, 102°, was reached ten hours after the fifth injection (0·007), and seven hours after the sixth injection (0·006). The first mention of any eye disturbance was on the 20th day, after the eighth injection (0·007). "Patient has felt less ill after this injection, but complained of some conjunctivitis of the right eye."

The ninth injection (22nd day) consisted of 0·007 grammes. After this injection two small nodules appeared on the fingers of the left hand, one becoming pustular. "Still epiphora."

After the tenth injection (0·007) the temperature began to rise "almost immediately," reaching 100·4° in four hours, remained above 100° for thirteen hours, fell rapidly then to 98·8°, and again rose to 101·2°, falling to normal on the third day after the injection. "Eye better."

Eleventh injection (30th day) was grm. ·007.

Twelfth injection (32nd day) was grm. ·008. "Not much constitutional disturbance caused by the injection, and she expresses herself as feeling much better."

Here the report of this case ends, with the note that the case is still under treatment.

Many cases of leprosy have been so treated during the last few months. Dr. Abraham mentions, amongst others, Dr. Colcott Fox's case, treated by Mr. Watson Cheyne, which showed marked temperature reaction after each injection, and extensive erythematous rash, followed by relief of some of the leprosy symptoms.

As a rule, in these cases of leprosy treated by Koch's fluid in moderate doses a general reaction has occurred, sometimes distinct. The local reaction is generally absent or slight, and apparently never comparable with what is seen in lupus.

The differences between the reactions after injections in tuberculosis and leprosy are summed up by Professors Babes and Kalindero, of Bucharest, after the consideration of seven cases of leprosy so treated, as follows:—

"1. In leprosy the general reaction—instead of in about six hours—does not ordinarily appear until twenty-four hours after injection, more rarely in twelve hours, although in one case of anæsthetic leprosy with pemphigoid eruption it came on in two hours.

2. The duration of the fever and concomitant symptoms varies, but generally lasts longer than in tuberculosis.

3. After a first reaction a second appears on the following day, and often a third the day after.

4. Contrary to what we observe in tuberculosis, there is a cumulative action if the injections are repeated daily.

5. Whilst in tuberculosis there is almost always a pronounced local as well as general reaction, in leprosy the former ordinarily fails, or is less marked after the first inoculations; it may appear, however, later on after larger doses.

6. The local reaction in tuberculosis is commonly followed by an abundant elimination of tuberculous products and marked amelioration, but in leprosy the congestion of the infiltrated spots is followed by a slight formation of small crusts, and a less marked desiccation. There is amelioration of the general condition, and sometimes a general weakness.

7. In nerve leprosy only once was a local reaction established, with hyperæsthesia in place of anæsthesia, and the appearance of red patches."

The authors consider that the fluid can distinguish for us whether a case is leprosy or tuberculosis, whether leprosy at the time be associated with tuberculosis, and if a suspicious trophoneurotic disease be leprous or not.

Alfred Eddowes.

PROCEEDINGS OF NEW YORK DERMATOLOGICAL SOCIETY. (*Journ. of Cutaneous and Genito-Urin. Dis.*, January, 1890.)

Among other cases Dr. Bulkley presented one of *Recurrent macular Syphilis, ten months after infection.* The patient had had venereal sores and buboes three years previously. There had not been any eruption at the time. In January 1890, a sore appeared on the penis, and he was seen in February. He then had a maculo-papular eruption on the body, mucous patches on the lips, tongue and genitals. In the following June alopecia appeared; in August, a papular syphilide of the palms, of which traces still remained, and later, mucous patches on the prepuce. November 15th; presented himself with a diffuse macular eruption, which had been present two weeks. Eruption situated on trunk, a few on extremities. The inguinal glands were somewhat enlarged.

In the discussion Dr. Keyes stated that he had seen relapsing roseolas as late as the second year after infection.

Dr. Klotz thought the eruption was a modified papular syphilide, the development of which had been checked by the effect of the remedies. The lesions were not all macular, but in some places an indistinct infiltration could be seen.

Dr. Bronson was of the opinion that the colour and irregular circular outline of some of the lesions suggested a parasitic affection.

Dr. Bulkley thought that the suggestion made by Dr. Klotz was a good one. The occurrence of a generalized macular eruption as presented by the patient was rare, late in syphilis, though that of a ringed erythematous lesion had frequently been seen by him as late as two to three years after infection.

A CLINICAL STUDY OF PRURITUS HIEMALIS, WINTER ITCH, ETC.

W. T. Corlett. (*Journ. Cutan. and Genito-Urin. Dis.*, February, 1891.)

From cases which have been under his observation, Dr. Corlett states that it would appear:—

1. That the state of the general health has no appreciable effect on the pruritus.

2. Local irritation of the clothes, though capable of aggravating the malady, yet is not of itself able to produce it.

3. Meteorological conditions appear to furnish the main etiological factor, being most potent with low temperatures, low humidity, and north-west winds. The greater the velocity of the winds the greater the pruritus.

4. It is not unfrequently associated with other neuroses of the skin.

The treatment is largely palliative. From internal treatment there is little success, the only drug seeming to him to promise success being ichthyol, but as it was given with local applications, it was impossible to say how much credit it actually deserved.

Locally resorcin was found to quiet the irrepressible desire to scratch, its influence being exerted for from two to five hours, and not unfrequently giving immunity for a whole night. Change of climate seems, however, to be the only curative means at our command, one not subject to sudden changes being advisable. Warmth and humidity are essentials.

George T. Elliot, M.D. (New York).

BASSORIN PASTE: A NEW BASE FOR DERMATOLOGICAL PREPARATIONS. Geo. T. Elliot. (*Journ. Cutan. and Genito-Urin. Dis.*, February, 1891.)

The characteristics of the paste, composed of bassorin, glycerine, water and dextrin, are as follows:—

1. Bassorin paste is a perfectly neutral substance, which of itself produces no irritation whatever, and when used alone acts simply as a protective to the skin. It does not become rancid, or decompose or undergo change when kept for a length of time, unless it be exposed in an open vessel. When this is done, it becomes dry and hard, but even then rubbing it up with a little water renders it again as serviceable as at first.

2. It is easy and simple in application, requiring only to be spread upon the skin with the finger or a brush. It dries in the space of a few minutes if so applied, adheres closely, does not rub off and soil the linen, but forms a flexible coat, which does not interfere with the movements of the body. When its removal is desired, the preparation can be washed off with a little water or a damp cloth or sponge. It remains *in situ* without change for a variable length of time, depending upon the condition of the surface on which it has been applied.

3. With the bassorin paste almost any drug can be incorporated; those which exist in the form of powders or in solid forms in any amount desired; the tars, ichthyol, and oily substances in smaller percentages, but sufficient for all practical purposes.

4. The action of drugs incorporated with it and their effect upon disease appears to be as good as when such are used in other excipients—or perhaps better in some cases.

5. It is of wide applicability, and of value in both acute and chronic forms of disease, its use being limited only by the degree of moisture on the surface being treated, or to which it may be exposed.

A CASE OF ATROPHIA MACULOSA AND STRIATA FOLLOWING TYPHOID FEVER. F. J. SHEPHERD. (*Journ. Cutan. and Genito-Urin. Dis.*, February, 1891.)

The patient, a boy of fifteen, had in September, 1889, a severe attack of typhoid fever, followed by double parotiditis, paralysis of the right facial nerve, paresis of the lower extremities, and fits, epileptic in character, with a mild form of dementia. About the middle of November transverse, coloured stripes were noticed on both legs above the knees. How long they had been there was not known, but they certainly had not been present a few weeks before. Dr. Shepherd saw him at the end of December. The striæ were above both knees and over patellæ, purplish in colour, elliptical in shape, and tapering to a point at both ends. They were transverse to the axis of the leg and parallel to one another. The largest was six inches long and half an inch broad at the middle. On the right side two parallel stripes were seen, and between them intermediate smaller ones. There was also a short broad one over the patella. On the left side there were five of these stripes, and over the patella a number of smaller ones. Several depressed spots of shiny skin, the size of a split pea to that of a bean, were also present.

The patient was under observation for three months, and during that time fresh spots and striæ appeared. They were not preceded by the first period of hypertrophy, as described by Liveing, but shiny, depressed, cicatricial-looking spots first appeared, and then gradually enlarged. At first the colour was reddish, and afterwards purplish. GEORGE T. ELLIOT, M.D. (New York).

THERAPEUTIC NOTES.

ICHTHYOL VARNISHES.

One great disadvantage in regard to the employment of ichthyol to limited areas of disease has been the impossibility of applying it in any way that was at once easy and efficacious. The pure drug, apart from its unsightliness and objectionable odour, will not dry, even if spread in a thin layer, but remains for hours moist and sticky, and the various combinations with dextrin, gum and gelatine-glycerine paint have been found in practice to be inefficacious. Ichthyol collodium promised better, but the irritation which is caused by removing it is such as to more than counterbalance its beneficial effects. In the case of patients who are only able to follow out treatment at night the removal of these firm adhesive layers each morning, therefore, renders their employment impossible. In order to overcome this difficulty and to produce an impermeable layer of ichthyol, which could be easily and quickly removed without irritating the skin, Unna instituted a series of experiments in conjunction with Dr. Helmers, and arrived at the following formula, which he finds to answer his purpose fully:—

Ichthyol	40 parts (by weight).
Starch	40 parts.
Albumen solution, concentrated . .	about 1–1½ parts.
Water . .	ad. 100 parts (*i.e.* about 20 parts).

The constituents must be mixed in definite order, the starch must be moistened with the water, the ichthyol then rubbed well in, and finally the albumen must be added.

The concentration may be regulated by the thickness of the layer, the first application being wiped off with a moist cloth so as to leave the finest possible coating. Even a thick layer dries very rapidly, and can be washed off at any moment.

An ichthyol-carbolic acid varnish having the same properties can be made in a similar way, but, of course, with the omission of the albumen. The formula is:—

Ichthyol	25 parts.
Carbolic acid	2·5 „
Starch	50 „
Water	22·5 „

The ichthyol and carbolic acid are dissolved in the water in a gentle heat, and the starch then added.

The first preparation, *vernisium ichthyoli*, is recommended in acne where the skin is irritable, in rosacea seborrhoica, and in rosacea simplex, in ulerythema centrifugum (one form of "lupus erythematosus"), intertrigines, tubercular eczema, seborrhoic eczema, and erysipelas.

It may with advantage be made a basis of other reducing and antiparasitic substances, such as chrysarobin (2–5°/$_o$), which may in this form be applied with confidence to the face, pyrogallol, resorcin, and sulphur, for the treatment of parasitic diseases, such as certain eczemas and psoriasis. But in this case it is better to mix, for every quantity of new substance added, an equal quantity of linseed oil, which is at once a reducing agent and a rapid seccative.

INTERNAL USE OF IODOL.

Cervesato proposes to replace iodine and the iodide of potash by iodol. The therapeutical properties of iodol are similar, and it has moreover the advantage of not producing digestive trouble, even in doses of fifteen to thirty grains. On the contrary, he affirms that the appetite will increase as well as the rapidity of assimilation. Where intestinal symptoms already exist it even acts as an antiseptic by disengaging iodine in the intestines. So far he has not observed the phenomena of iodism after its use. Elimination takes place by the kidneys; the urine being found to contain iodine, while the excretion of urea is increased as well as the amount of urine passed.

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MAY, 1891.

CHRONIC URTICARIA, ASSOCIATED WITH AN ERUPTION CONSISTING OF EXTREMELY ITCHY PAPULES FOLLOWED BY RINGED PIGMENTATION.

BY WALLACE BEATTY, M.D., F.R.C.P.I.,
Senior Assistant Physician to the Adelaide Hospital, Dublin.

In August last Dr. Head asked me to see and take under my care a young lady who was suffering from chronic urticaria, and also from a peculiar eruption, which resembled an eruption I had seen some years ago, an account of which was published in the "Transactions of the Royal Academy of Medicine in Ireland." 1884.*

My patient, a young unmarried lady, aged about 23, began to be troubled with "hives" in February 1890. Her previous history was as follows:—

She had diphtheria about five or six years ago, and was under Dr. Head's and my care at that time. The diphtheria was followed by a nervous hysterical condition which lasted for several weeks. During this time her chief complaint was spinal pain. She recovered completely, and except for frequent attacks of "sore-throat," and a slight influenza attack in December, 1889, she was very well until the present skin trouble began.

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* "A Rare Form of Skin Disease, resembling in some of its features Urticaria Pigmentosa," by the Writer.—*Trans. Acad. Med. in Ireland*, Vol. II., p. 87. 1884.

I saw her first for the skin affection on August 29th, 1890. She gave me the following account of it:—

"Hives" appeared in February, 1890, and had lasted ever since. They came out all over the body except the face and head. They were worse after late dinner, and at bedtime. She was often kept awake at night by them; on the whole, however, she slept well, and at times during the day felt as if she could sleep for hours and hours. Sometimes there were a good many hives out at one time; they came out at different parts of the body at different times. They came out copiously, about the size of a sixpence, and spread into each other, until a large portion of the body was covered with them, and swollen; they were raised, flat on the top, and red all over; they were not always circular in shape. The hands and fingers were at times so much swollen, that she could scarcely bend the fingers; the swelling remained for a few hours.

Two months ago another eruption appeared. At first, small, raised, red spots came; they remained as red spots for a few days, then they began to flatten down and become brown; the brown spots persisted. They were very irritating and continued to be so for a long time. Sometimes some of the brown spots became very irritable again, when she thought they had almost gone. These spots had continued to come out day after day for the past two months, and ran the same course as those that first appeared. She was positive that the spots did not begin as hives.

Since February 1890, when the hives appeared, she frequently felt very sick, but had no vomiting; the abdomen often became swollen at night. She had severe frontal headache at times. Her bowels were constipated. Menstruation was regular, but she suffered more at the menstrual periods lately than before. Her throat was sore at times; when it was so, a tiny pimply rash appeared on the face.

I saw her several times during September and October 1890; on only one occasion was there any sign of ordinary urticaria; a large red, wheal-like patch appeared on the outer side of the right arm while I was examining her. She came to me each time at midday, when she was usually free from wheals; this accounts for my having only seen a wheal once, but from her description there can be no doubt that she suffered from urticaria. Factitious urticaria could not be produced.

With regard to the second eruption, examination of the skin revealed in the beginning of October the following condition:—On the shoulders, on the back of the chest, and in the lumbar and sacral regions there were numerous circular brown spots, from two to four millimetres in diameter; most of these spots had a whitish centre, and brown periphery; the paleness of the centre corresponded in some spots to the normal colour of the skin, in others it was decidedly whiter. Some spots were uniformly brown, that is, they had not a white centre. Some were slightly raised, but the majority were on a level with the surrounding healthy skin. On the loins there were a few larger spots, five millimetres in diameter. Besides these circular pigmentary spots there were a few linear and spindle-shaped lesions with a brown border, and an elongated whitish centre.

On the front of the chest there were only a few spots; they were in the form of circular, brown, pigmentary lesions five millimetres in diameter; some had a white centre, others were uniformly brown.

On the abdomen, besides pigmentary spots similar to those already described, were a few small, exceedingly itchy papules (which represented recent eruption); there was one larger papule over the anterior part of the right iliac crest; it was of an oval shape, in size five millimetres long and three millimetres broad; its centre was distinctly raised and red, its periphery was brown and only slightly raised; on pressure, the centre became pale, the periphery remained brown as before.

The arms and forearms were almost free from eruption; near the shoulders were some pigmentary macules of some standing; there were a few itchy papules here and there. On the thighs there were numerous spots, some circular, some elongated; there was one elongated patch, two and a half centimetres long by three millimetres wide on one thigh; its periphery was brown, its centre whitish. A few of the circular spots were slightly scaly. The spots were situated chiefly on the posterior and outer aspects of the thighs: they had a white centre, and brown pigmented periphery; they were from four to five millimetres in diameter.

On the legs (which were later affected) were similar spots, from four to six millimetres in diameter. Some spots were uniformly brown, others had a pale centre. There were also present a few recent itchy (scratched) papules.

The hands and feet were free from the eruption.

Examination of her urine revealed nothing abnormal.

The heart and lungs were healthy.

In the beginning of March 1891 I got a letter from my patient. She wrote: "The rash is not much better on the whole, though sometimes it gets better for a day or so, and then is as bad as ever again. I have not had the slightest return of the hives since you cured them with the soda when I was in Dublin," (I gave salicylate and sulphate of sodium in October; she has not had a return of the hives *since the* end of October): "some of the spots have disappeared—those I got at first; the others keep on reviving and are nearly as irritable as when they came out first. The skin becomes irritable sometimes even when spots do not come out. Some spots have left a little white mark, slightly raised." In January she wrote and told me that some spots had appeared on her face; some of these spots became brown—these brown spots were not as large as the body spots, and had not white centres.

As to treatment, I employed a number of drugs, both *internally* and externally. Internally, I tried ichthyol, bromide of potassium, arsenic, quinine, bismuth, atropia, aconite, and gelsemium without benefit. A combination of salicylate and sulphate of sodium seemed to be of decided benefit. Under its use the wheals disappeared, and the other eruption became somewhat less irritable. Locally, I tried ichthyol soap, resorcin, carbolic acid lotion and lead lotion, as well as dusting powders.

The peculiar features of my case may be thus briefly summarized:

The first eruption to appear was urticaria. After the urticaria had lasted for a few months a second eruption developed, consisting of extremely irritable papules, from two to six millimetres in diameter; the papules after a few days flattened, first at the periphery, and then at the centre; brown pigmentation took place at the periphery, and the centre became pale.

The papules did not develope as wheals, but were independent of them. They remained itchy for a long time, and some of the old pigmentary spots, having for a time ceased to be irritable, became irritable again.

A few elongated patches formed, with a pigmented periphery and white elongated centre.

The papules continued to appear after the wheals had ceased to form.

Dr. Walter Smith saw my patient in consultation with me. He considered the case a very remarkable one, and told me he had not seen a similar case in his own practice. He agreed with me in regarding the affection as similar to that which was present in the two cases I recorded in 1884, and which I alluded to at the commencement of this paper. The following is an account of these two cases:—

The disease affected two brothers, aged fifteen and twelve respectively, and had commenced about one year before I saw them. An eruption was present over the greater part of the body in the form of spots of four different kinds, which appeared to represent different stages.

1. Red, slightly raised papules, some pin-head sized, others larger, about split-pea sized, mostly topped with a minute blood crust, the result of scratching.

2. Dull brownish circular spots, about nine millimetres in diameter for the most part, but some rather larger; these spots were on a level with the skin or slightly raised. Their colour did not alter on pressure.

3. Similar sized spots, with a whitish centre, and a dull brown periphery.

4. White spots of different sizes, some very small, others larger, but only a few as large as the brown ones. Most of these white spots were on a level with the surrounding healthy skin, and felt somewhat firm to the touch; some, however, presented minute depressions on their surface, being somewhat "thimbled," and one or two presented minute furrows radiating from the centre.

The elder boy described the course of the affection as follows:—

He first noticed itchiness at one spot; he scratched the spot; this scratch was followed by redness, and sometimes by an appearance like a hive. After some hours a pimple appeared, which was sometimes itchy, sometimes not so: soon this pimple flattened, enlarged somewhat, and became dull brown. After a time the centre became whitish, the circumference remaining brown: finally the brown colour disappeared, leaving a white persistent spot. Pimples sometimes appeared without previous scratching.

I was not able to produce wheals by scratching, but the boy asserted that they did appear. The redness produced by scratching was, however, more marked and more persistent than normal. Dr. Walter Smith, who saw these cases with me, suggested that they might possibly be similar in their nature to urticaria pigmentosa, the itchiness, the occurrence of wheals on the parts scratched, the formation of papules, and the subsequent pigmentation constituting the resemblance.

There are four points, however, in which these two cases differed from all the cases of urticaria pigmentosa which have been published:

1. The eruption did not begin till several years after birth.

2. The eruption consisted of much smaller elevations than those usually present in urticaria pigmentosa.

3. The elevations were not buff-coloured.

4. The subsequent atrophy of pigment and formation of white spots were peculiar.

Dr. Crocker, alluding to these two cases in his book on "Diseases of the Skin,"* is inclined to regard the affection as of the same nature as the maculæ atrophicæ described by Dr. Liveing. There are, however, two essential points in which they differed from Liveing's maculæ atrophicæ:

1. They occurred in association with urticaria.

2. They were very itchy.

Moreover, in most of the white spots there was no atrophy of the skin, but simply a disappearance of its pigment.

The three cases, namely, those of the two brothers and that of the young lady are, I believe, essentially of the same nature. The termination of the eruption in white spots in the boys' cases is, no doubt, an important point of difference; still, the fact that the cases resembled each other in so many particulars, and the fact that in a letter which the lady wrote to me recently she stated "that some of the spots have left a little white mark slightly raised," make me regard these three cases as closely allied to each other.

In conclusion, I think cases of urticaria associated with pigmentation may be divided into the following groups:—

1. Urticaria pigmentosa.—This disease commences in infancy. The

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* Page 88.

lesions are tubercles from a hemp-seed to a bean in size; they are usually buff-coloured; they remain as tubercles for a long time, and finally leave behind them brown pigmentation. Ordinary urticaria is usually present, and factitious urticaria can often be produced.

2. Urticaria in the course of which occur, sometimes quite independently of the wheals, extremely itchy papules, which on subsiding leave either pigmentation only, or more commonly a zone of brown pigmentation, with a white pigmentless centre. These papules continue to come out after the wheals have ceased to appear. The pigment may eventually disappear and white pigmentless spots remain. The disease may occur after childhood.

3. Ordinary urticaria, or urticaria papulosa of children, followed by temporary brown pigmentation.

GUMMATOUS TUBERCULAR LYMPHANGITIS.

A Case of Death following the Use of Koch's Tuberculin, with some Observations on the Researches of the Physicians of St. Louis Hospital upon that Remedy, in Reply to an Article in the April Number of the "British Journal of Dermatology."

BY LOUIS WICKHAM, M.D., PARIS.

I desire to call attention to an important event which has *just* occurred at the St. Louis Hospital. In the museum of that hospital there have long existed some old casts of great interest, bearing the label "lymphatic varices." Some of them exhibited suppurative lesions of doubtful origin. The matter stood thus when Mons. Hallopeau presented, at a recent meeting of the Dermatological Society, a patient suffering from the lesions thus entitled "lymphatic varices" on his lower extremities, but which presented certain peculiarities, as follows:—

There existed round the ankles and on the thighs in the course of the lymphatic vessels intradermic or subcutaneous nodosities arranged in rows; from some of them there oozed a few drops of lymph, others were frankly inflammatory and suppurating. Mons. Hallopeau, in investigating the origin of these, made histological and experimental researches, which proved that they were in reality tubercular lesions of the lymphatics. The domain of tuberculosis has been thus extended, and it seems probable that many observations hitherto published as "lymphatic varices" or "simple lymphangiectases" are nothing else than tubercular lymphangites.

The patient, who enjoyed excellent health, and had no pulmonary or other general symptoms, happened to be in hospital at the time when experiments were being made with Koch's lymph. He was inoculated, and if the reader will refer to No. 82 in the table published in the March number of this journal, he will see that the patient had five inoculations, of 0·0005 gr. (half a milligramme) to 0·0015 gr. (one milligramme and a half) from the 5th of December to the 10th of January. These inoculations were followed by local reaction of moderate intensity, but it was impossible to increase the dose, as the general reaction was always violent, with pulmonary congestion, albuminuria, emaciation, prostration, etc. After the last inoculation the patient got much worse, and was attacked with acute tuberculosis, so that the treatment had to be abandoned. Soon afterwards the poor fellow fell into a condition of profound collapse, and succumbed at the end of the month of February. At the autopsy very numerous small tubercular granulations were found in the lungs. Considering that the patient had no symptoms before the beginning of the treatment, and that his attack of acute tuberculosis began after the first few injections, it is perfectly justifiable to conclude that the tuberculin exerted a direct and noxious influence upon him. Another point worthy of remark is that these complications appeared in spite of the extreme prudence in the matter of the quantities injected, which never exceeded a milligramme and a half.

With regard to this matter I should like to clear up certain points indicated in my last letters relative to the Koch treatment, which appear not to have been sufficiently explicit, if I may judge by the note of Dr. Leslie Phillips, which was published in the April number of this Journal. This writer severely criticizes the action of Drs. Vidal, Besnier, Fournier, etc., who, according to him, appear not to have shown themselves as sufficiently skilled in the application of Koch's method, and to have published statistics obviously valueless. The doses employed, he says, never reached the figure indicated by Koch. These physicians, as we know, were content to make use of injections of from a half to two milligrammes, and in six cases thus treated the lupus lesions showed no alterations; such facts, being inconclusive, were naturally included in the statistics, and they appear in the tabular statement as " result nil."

From my letter in the February number of the Journal, which gives an account of the first part of the work of the St. Louis Commission, it may be observed how irregular and variable the action of the tuberculin proved to be. (The report and tabular statement drawn up by Mons. Besnier appeared in the March number.)

A patient would not react to a first injection of one milligramme, but would react violently and beyond all expectation to a second or third injection of the same dose. Sometimes four milligrammes would cause almost no reaction in one patient, whereas in another one milligramme would cause serious symptoms. With a medicament so uncertain in its action, it was obviously a primary duty to act with prudence, and it was decided to start treatment in all cases with small injections of from half a milligramme to two milligrammes, then to increase the dose gradually.

Let us study the results: Some cases, *e.g.*, Nos. 1 and 2 in the table, almost died as the immediate result of the first inoculation. In the case of No. 1 no further treatment was resorted to. In No. 2 a second injection was given, and this time the results were even more alarming. Certainly no physician would have dared either to have increased the dose or to have continued the treatment even with diminished doses, as the unfortunate patients had dangerous attacks of severe pulmonary congestion. The treatment of these patients was therefore abandoned, and their cases appears upon the statistical table as "results nil," that is to say "nil" as regards the utility of tuberculin for the cure of lupus.

In other cases in which the lupus was not improved by the treatment the first injections produced reactions which were supportable; the dose was then increased, but it was found that after the sixth, seventh, or eighth injection complete tolerance was rapidly acquired, and that increased doses produced no effect whatever. As the lupus had not altered, and the tuberculin caused no results, those cases were also included among the "results nil." In fact, this word "nil" indicates that the physicians of St. Louis obtained with the lymph no amelioration of the disease which it was their business to treat, and were debarred from further action either by the intensity of the complications produced or by a too rapidly established tolerance.

In studying the tables drawn up by the St. Louis Commission we would draw special attention to *all* the columns under various headings, of which they consist, as well as to the reports of Messieurs Besnier, Vidal and Hallopeau.* These works of the Commission constitute a *tout ensemble* from which nothing can be abstracted if a thorough understanding of all the details is to be arrived at.

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* *Annales de Dermatologie*, February, 25, 1891.

The following may be considered a summary of the conclusions arrived at in France:—Tuberculin undoubtedly generally benefits tubercular affections of the skin to some extent; unfortunately, its use even in minimum doses may produce serious symptoms, sometimes ephemeral, sometimes of long duration, sometimes even fatal; its action in different doses is most uncertain, and it is impossible to foresay what may result from an inoculation; every medical man, whose first care it must be above all things not to injure his patient, is bound to maintain the most strict reserve towards the method.

It may be remarked with fairness that in this matter the physicians of St. Louis have shown themselves specially cautious; but surely reasonable caution is absolutely necessary in dealing with a substance the effects of which cannot be accurately estimated beforehand, and for the treatment of a disease which in itself does not endanger the life of the patient, especially, as in the majority of cases, we can cure it by other methods.

Experience has shown how judicious and free from the charge of *excessive* prudence the method followed by the St. Louis physicians was, for, alas! despite the great care exercised, and the small doses injected, out of the thirty-eight cases treated, one has since died, as we have just seen, of acute tuberculosis occasioned by the "lymph"; another (No. 31 in the table) is now the subject of an incurable affection of the heart, viz., mitral and aortic incompetence, the results of acute endocarditis which developed during an intense general reaction after inoculation. Several others have not yet recovered from the severe pulmonary accidents, anæmia, etc., which resulted from the treatment.

VIENNA LETTER.

EDWARD SCHIFF, M.D.,
Docent in the University of Vienna.

III.

In giving a short account of the work of the Vienna Dermatological Society during the winter session of 1890–91—which may with justice be called a very successful one—it is not our intention to communicate any formal enumeration of its transactions, but rather to give expression to some general considerations evoked by Koch's method of treatment of tuberculosis, a subject which has so greatly occupied the attention of dermatologists during the last six months. For, indeed, it may be said that during the three months which succeeded its announcement, this method of treatment almost entirely engrossed the attention of the profession.

The first reports of the extraordinarily curative action of the injections of "lymph"—subsequently termed tuberculin—referred chiefly to lupus, and it was only afterwards that the results obtained by general physicians in other tubercular manifestions appeared, for a time, so favourable as to surpass the highest expectations. The various and detailed communications with regard to the experimental use of Koch's fluid on lupus, lepra, and some similar skin affections by Kaposi, Hebra, Neumann, etc., are too fresh in the memory of every one to allow of their repetition here. All that one can now say is that most of those who implicitly believed in the diagnostic and therapeutic value of the "lymph" before Virchow's remarkable declarations on the subject, have seen good cause to modify their views.

But for this very reason that the utility of Koch's method of treatment seems now to be entirely ignored, we think it not inappropriate to give our personal views as to the applicability of the "lymph" in certain dermatoses.

Just as in the first instance we declined to agree with those who perceived in Koch's treatment a final practical solution of the whole immense problem of the treatment of tuberculosis, so now we must with equal energy decline to side with those pessimists who consider Koch's method as exploded, or as a subject of which no mention ought to be made in respectable medical society. What really strikes one is the sudden change from universal enthusiasm to unfair and cynical criticism.

It is, indeed, scarcely necessary for us to point out that almost every new idea has, as it were, to fight for itself a struggle for existence with traditionally accepted errors, and the history of medicine offers no exception to this rule. As examples I may cite vaccination, the mercurial treatment of syphilis, and even the more innocent atropin injection, all of which provoked in turn the most virulent opposition.

Nevertheless, in the present instance, there is one striking point of difference in the original attitude of the profession. Whilst formerly new methods of treatment (as, for instance, the antiseptic treatment of wounds) found all their adversaries in a single serried line of defence, Koch's method on the contrary found but adherents and admirers. Indeed only a few voices of our Vienna school were heard raised with the advice to suspend judgment for a time.

We can feel no surprise that the method of treatment excited unusual attention, for it concerns the cure of that scourge of mankind, tuberculosis, and of lupus, one of its most repulsive forms; there was also ground for hope that it might be utilized against other bacillary diseases.

Three errors have been committed which explain the disfavour into which the treatment has now fallen, as well as the fact, that full justice has not been rendered to the genius of Koch. First, the original reports of the discovery of a cure for tuberculosis appeared prematurely, a fact hardly to be denied by Koch's most faithful followers. Many discrepancies which exist between Koch's first and second communications with regard to the indications for the "lymph," its influence upon bacilli, its efficacy, etc., clearly show that Koch himself, at the time of his first preliminary article, had not arrived at any final conclusions as to the effect of the inoculations. For there was a great lack of experience derived from rich clinical material, which alone could decide the practical value of the injections, if not of the method.

Secondly, there were, it is stated, several of his clinical advisers who did not examine the "lymph" and its effects with due calm and scientific thoroughness, and who, by their unbridled optimism, influenced Koch's views as to its diagnostic value and sphere of utility.

To these evils was superadded the third and greatest, which is so eminently characteristic of our times, viz., *the meddling of the daily press with strictly medical affairs.* Matters which, from their very nature, ought only to have been investigated in the laboratory, round the sick bed, and subsequently in the most exclusive spheres of expert investigation, were treated of in articles like mere *feuilletons* in all the public prints. An amount of excitement was thus brought about which finds but few parallels in the history of medicine. Coerced by public opinion, the discoverer found himself under the necessity of saying his last word, of expressing his final opinion, before it was his intention to do so.

Modest as our expectations now are with regard to the utility of Koch's "lymph," we still beg to prognosticate for it a brighter future. It will, of necessity, be essential to have a more intimate knowledge of "bacillary extracts," and to attain some reliable data for dosage; in short, to study the subject patiently and thoroughly. We have good reason to hope that the fundamental *idea* will emerge victorious from the struggle by some application of the *method* by which Koch discovered his remedy. We see in Koch not only a synthetist starting from a great idea, but also an analyst, who, step by step, with indefatigable energy, carries out that idea. We are therefore of opinion that sooner or later Koch's method will, under certain given conditions, prove a most valuable addition to dermato-therapeutics.

In the late session a few cases of *Pityriasis rubra pilaris* were presented at the Dermatological Society, on all of which occasions the divergent views of the Vienna dermatologists with regard to the nature of the affection were again manifested. There is, however, no doubt that, as the result of constant objective discussion, the way is being paved to an agreement of opinions.

A most interesting case of *Dermato-myomata,* shown by Dr.

Lukasievic, provoked a very significant and instructive debate. In the previous term some important theoretical and experimental studies — especially in the domain of pharmacology — were communicated to the Society. We would especially indicate Dr. Paschke's interesting lecture on " Soaps, and the Absorption of Medicaments by the Skin."

It is not necessary to point out the importance of the Dermatological Society, where a lively exchange of opinions on dermatological subjects takes place between its members, united in the closest fellowship and most friendly intercourse. Wherever any gathering together of representative members of the craft of medicine takes place with a view to mutual investigation, be it in periodical congresses or in more frequent unions and societies, a happy reaction upon medical art is inevitable. For thus is Bacon's forecast confirmed, who on the one side from the inevitable progress upon methods of *induction*, on the other side from *co-operation* of all investigators, predicted the longed-for *restauratio litterarum*.

Vienna, April, 1891.

CLINICAL NOTES.

A PECULIAR TERTIARY SYPHILIDE, SERPIGINOUS AND NON-DESTRUCTIVE, WITH LOCAL NEURALGIA AND LOSS OF HAIR PIGMENT.

BY WILLIAM ANDERSON, F.R.C.S.,

Surgeon to the Skin Department at St. Thomas's Hospital.

W. C., aged thirty-eight, attended the Skin Clinique at St. Thomas's Hospital in February last, with an eruption upon the face. The eruption first appeared seven months before in the form of two small, slightly elevated, reddish patches on the left temple and right cheek, accompanied by pain of a neuralgic character, but of no great severity. The disease spread slowly in a serpiginous manner from the right cheek in the direction of the nostril and eyebrow, and meanwhile a third patch showed itself on the left cheek, again with neuralgia, and extended in like manner towards the corresponding nostril, the spreading edge retaining the reddish tubercular aspect, while the track of the eruption was marked not by any cicatrization or other alteration of the skin, but by the disappearance of pigment from the hair of the part. The patient says that the change of colour was observed within forty-eight hours of the onset, and the whitened hair then fell out, to be replaced shortly afterwards by a new and strong, but completely unpigmented, growth.

His health had always been good, except for occasional attacks of subacute rheumatism. Twenty years before he had contracted a sore of uncertain nature on the penis, but had never suffered from anything resembling secondary syphilis. He has had local treatment of various kinds for the present disease, but nothing has affected its course.

There were, at the time of admission, two active patches on the right cheek, another over the left cheek, and another below the inner extremity of the right eyebrow, the two latter corresponding to the free extremity of two serpiginous tracts which had crossed the face. The patches were slightly raised, pale red in colour, and somewhat rough on the surface, and the hair over the present and past seats of lesion was quite white, contrasting curiously with the dark brown of the natural scalp-hair and whisker. No trace of cicatrization was visible. Examination of the epidermis and hair-roots in the neighbourhood of the patches showed no sign of parasitic growth.

The diagnosis was by no means clear. The long duration and serpiginous course of the eruption suggested a remote syphilitic origin, but the absence of scarring and the tendency to symmetry were somewhat unfavourable to the view, while the neuralgic pain and absolute loss of pigment in the hair of the parts attacked pointed in the direction of a tropho-neurosis. No evidence of parasitic disease could be detected, and as local treatment had hitherto been unavailing, it was determined to administer iodide of potassium tentatively. The drug was prescribed in five-grain doses three times daily, and local applications were withheld.

At the end of a week the man returned. The eruption had disappeared, except two small patches on the cheek where the disease had been most strongly marked. A few days later the whole had passed away, and nothing remained to mark the seat of the past disease but the unpigmented hair.

The treatment has since been pursued continuously, but no further change has occurred, and the hair still remains white.

Remarks.—The rapid effect of the iodide of potassium after the complete failure of local treatment leaves little doubt as to the syphilitic nature of the lesions, but the appearance and course of the eruption were very atypical. It is true that some of the later serpiginous syphilides, especially those about the hands, may occur bi-laterally, may follow a protracted course, and may leave little or no cicatrization, but these generally yield very slowly, even under the most energetic treatment with iodides, and in none of these conditions have neuralgic pains and loss of pigment in the hairs been observed, so far as I have been able to ascertain. The local neurosis was, perhaps, the more remarkable because the patient appeared to possess more than average stability of the nervous system.

CASES OF ATROPHIA CUTIS AND MORPHŒA.

BY A. G. BARRS, M.D. (EDIN.), M.R.C.P.,

Senior Assistant Physician to Leeds General Infirmary, etc.

CASE I.—ATROPHIA STRIATA CUTIS IN THE DORSO-LUMBAR REGION.

Annie B., æt. 18, unmarried, came under my observation in the medical out-patient room of the Leeds General Infirmary in February, 1891. She was then complaining of symptoms pointing to phthisis pulmonalis, and in the course of a routine examination the atrophic lines in the skin of the back were discovered. The lines, more numerous on the right than on the left side,—on the former numbering eight, and on the latter four,—were arranged parallel to each other, and to the direction of the ribs. They occupied an area limited above by the ninth rib, and below by the crest of the ileum, and were nearly equidistant from each other. The longest of them, in the group on the right side, measured four inches in length and a quarter of an inch in breadth at its widest part. They had an arrangement which suggested to some who saw them the appearances left after flogging with the cat, when that implement is applied from above downwards. The lines had precisely the appearance of the atrophic lines seen on the abdomen after repeated pregnancies, and on other parts of the body after prolonged distension. They were quite perceptible to touch on passing the fingers over the part. There was no anæsthesia or pain, and there were no similar lines discoverable on any other part of the body.

Their history is interesting. They were discovered in January, 1890, when she was under Dr. Chadwick's care at the Leeds Public Dispensary, and Mr. Smeeton, one of the resident officers of that institution, has been good enough to send me the following account of the case:—"I first saw her on January 4, 1890. She was then in a state of pure hysteria. She lay without speaking, taking little food, making no movements; the temperature was normal, and there were no physical signs of disease. In the course of two or three weeks she developed signs of pneumonia at the right base. She was very ill for a time, and during the illness she began to speak again. While still in bed the streaks began to appear. There was no œdema of the neighbourhood, nor was the side distended. She used to complain of intense pain over the streaks, the pain being worse on the right side. The streaks developed one by one without inflammation or other morbid sign."

It may be added that she has been a life-long invalid, and has been in the infirmary no less than six times.

There is nothing in the family history of importance or with any bearing on the case.

CASE II.—MORPHŒA OF THE LIMBS.

Grace ——, æt. 27, married, has been under my observation at the Leeds General Infirmary more or less continuously for the last seven years. She is an undergrown, unwholesome-looking, intensely nervous female. The parts affected are both arms, the left leg, and the abdomen.

The changes follow almost exactly the nerve distribution of the parts involved.

In the left upper extremity the lesions occupy the parts supplied by the following nerves, or very nearly so:—1, The supra-acromial branches of the cervical nerves supplying the skin over the lower part of the deltoid; 2, The circumflex nerve in all its branches, both muscular and cutaneous; 3, The cutaneous branches of the musculo-spiral. In the right upper extremity the lesions correspond to the distribution of the ulnar-cutaneous branches, and the upper and lower branches of the internal cutaneous nerve. In the left leg the lesions correspond to the external saphenous and musculo-cutaneous nerves. The changes are precisely the same in kind in all the parts involved, so that it is unnecessary to give a detailed description of all of them.

In the left upper extremity the most marked alteration is at and about the point of the shoulder. Here the normal bone points are unduly conspicuous and altered in their outlines, the whole appearance being due to the wasted condition or practical absence of the deltoid muscle. The skin corresponding to the nerve areas enumerated above, and constituting a continuous band extending from the shoulder to the root of the limb, is affected. This band varies in width from an inch to an inch and a half. Its colour differs from that of the surrounding healthy parts into which it gradually fades, in that it is much the colour of old worn parchment, with a faint blood tinge in it, with mottlings here and there of a dirty-brown hue. The surface is thickly marked with arborescent venules, the stems of the venous systems occupying the centre of the band. The skin is perfectly smooth and glossy, and when taken between the fingers it is found to be of extreme delicacy and to have lost much of its substance. It is easily raised from the subjacent parts, and, in so raising it, one is struck by the absence of tissues intervening between it and the bones. The deltoid has almost entirely disappeared, and the upper part of the infra-spinatus is clearly wanting. There is some cicatrix-like contraction at the elbow joint, the result of skin changes. There is some blunting of sensation in the affected areas of skin, and she complains of shooting pains deeply seated in the parts. The pigmentation of the parts is best seen at the upper and lower limits of the disease. The above description of the skin changes will apply to the right upper limb, the left leg, and the abdomen. The right hand requires special mention. There the limitation to the ulnar distribution in the fingers is most striking. The little finger is nothing but skin and bone, and presents a most strikingly shrivelled and shrunken appearance. It suffers much from cold, and is usually blue in colour. The ulnar half of the ring-finger, including the nail, is in the same withered condition, while the radial half of the same finger is of natural appearance, substance and size. These two digits show better than any other parts, perhaps, how the condition is not confined to the skin, but affects everything down to and including the bone.

I am unable to give any history of the condition beyond that it has existed very much as it is now ever since she can remember.

CASE III.—HEMIATROPHIA FACIALIS WITH MORPHŒA PATCH ON ABDOMEN.

Kate B., æt. 27, was first seen by me in 1887, through the kindness of Dr. Clifford Allbutt.

There is now marked shrinking of the right side of the face and recession of the eyeball. On closer examination the part affected is limited above by the upper margin of the orbit, and below by the line of the teeth in the lower jaw, that is to say, it is the superior maxilla and its coverings which are chiefly affected as distinguished from the forehead and the lower jaw. The eye has a curious sunken appearance, and looks very like an artificial eye set in a shrunken orbit, as one sometimes sees it after enucleation of the globe. The eyebrow is natural. The hair is unaffected. The right zygoma feels less substantial than that on the opposite side. There is marked blunting of sensation in the distribution of the superior maxillary nerve, but the substance and texture of the skin are normal.

The condition has been slowly progressing during the last seven or eight years. For many years before the onset she was subject to "tic or neuralgia" in the right side of the face.

At about the same time as the onset of the hemiatrophy she found a hardness in the right lower abdomen, which began in the right flank and gradually spread downwards and forwards. It was darker than the rest of the skin. The surface was quite smooth and very hard, and she was unable to pick the skin up as in the other parts of the body. This patch now is quite easily recognized as a discoloured, wasted patch of skin, obviously of the same nature as the patches described in Case 2.

Apart from these changes, she is a fairly healthy, but distinctly nervous, woman.

CASE IV.—MORPHŒA OF FACE, CONFINED TO THE SUPRA-ORBITAL REGION.

Male, æt. 41. Twenty-six years ago there appeared a white mark on the left forehead. It gradually spread upwards, but was not raised above the level of the surrounding parts. The patch soon showed signs of wasting, until in a few years the depression seen at present was developed. At first there was some aching pain in the affected part. He is a well-built, strong, intelligent man. He comes for advice about the deformity of his face, which consists in a wide, shallow groove, running upwards and a little outwards from the inner angle of the left orbit, to be lost in the hairy scalp. This groove is due to the wasting of the bone, subcutaneous structures and skin exactly corresponding to the trunk of the supra-orbital nerve. The skin has, in many ways, the same appearance as that described in Case 2. There is no anæsthesia. No other parts of the body are affected.

THREE CASES OF LUPUS VULGARIS IN ONE FAMILY.

BY CLINTON T. DENT, F.R.C.S.,
Assistant Surgeon to St. George's Hospital.

A brief record of two cases of lupus, shown at a recent meeting of the Dermatological Society, may prove of interest, as they furnish evidence in favour of the possible communicability of the affection. The patients were sisters, aged fourteen and fifteen respectively. A third sister, aged seventeen, was also affected. The family consisted of eight girls and three boys. The patients were the youngest of the girls. There was no phthisical taint in the family. The history is, briefly, as follows:—

Nellie W., aged 14, suffered from disease of the tibia when two years old (a localized tubercular ostitis, or central necrosis). The sequestrum was removed, and the cavity scraped out; the wound healed soundly, and has never given trouble since. When the child was four years old the first traces of lupus appeared in the skin over Scarpa's triangle of the same leg. Gradually a well-marked lupus vulgaris serpiginosus developed. The girl was, on some four or five occasions, treated by scraping and the application of the actual cautery. Almost the whole of the skin of the thigh is now converted into scar tissue. Fresh nodules appeared in the winter of 1890-1, at the margins of the scar near the gluteal fold, and over the back of the knee. Koch's treatment was employed, followed by scraping and the use of the actual cautery, when the local reaction had almost ceased.

Theresa W., aged fifteen, her sister, was first attacked about 1885, some nodules of lupus vulgaris appearing on the inner side of the right arm, just above the elbow. The disease spread slowly, and was on one occasion, three or four years after its commencement, treated by scraping and the actual cautery. Fresh nodules appeared last winter (the usual season for extension or return of the disease), and the patient was treated, simultaneously with her sister, by Koch's method, followed by scraping and cauterization. In both patients good results were obtained. In neither did the tuberculin alone seem able to benefit the patients beyond a certain point, which was distinctly short of a "cure."

Louisa W., the third sister, aged 17, was attacked first in 1886, about a year after her sister Theresa. The disease in her case was very slight, consisting only of a small patch of lupus vulgaris on the face above the ear, and half hidden by the hair. In this patient, too, the disease, which had been on one occasion scraped, and then had remained quiescent for some time, showed a tendency to new activity in the winter. This recurrence subsided without treatment, and the lupus now promises to retrograde and get well.

Now these three children, who were the youngest daughters of the family, for some years slept together in the same room, the two elder, for a time, in the same bed. To say the least, this history favours the view that lupus is, in a degree, contagious. Further, the fact is noticeable that the male children, who are younger than the patients described, have escaped altogether. Nor should the fact that the patients, in whom the lupus developed later, suffered from a far less severe form of the disease, pass without remark. I have long thought that lupus vulgaris is actually, though with great difficulty, contagious. These cases favour this view without any undue straining of the evidence. The fact, too, that in the first case lupus followed the tubercular ostitis, is significant, for the question whether lupus vulgaris is a real tuberculosis of the skin is still far from settled. If it be not out of date now to refer to the results of Koch's method (a form of treatment almost antiquated already), I may say that the chief use of the tuberculin was that it revealed unsuspected nodules in the scars. Undoubtedly, too, the remedy made the subsequent scraping and cauterization more easy and effective. Cases will still occur in which the injection treatment will prove of value, and these will be principally cases of ulcerating lupus vulgaris in which the lungs are sound.

PRÉCIS.

ON THE RELATIONS OF ECZEMA TO LESIONS OF THE NERVOUS SYSTEM. Dr. L. DUNCAN BULKLEY, of New York. (*Monatshefte für Prakt. Dermatologie, Ergänzungsheft.* April 1, 1891.)

Dr. Bulkley published many years ago the results of his studies on the connection between eczema and the various lesions and disturbances of the nervous system with which it is found in apparently causal connection, so that the bent of his opinions on the subject are already well known. This last essay, which was originally intended to open the discussion which should have been held on the nature and etiology of eczema at Berlin (a discussion which, from some inexplicable reason, was allowed to be crushed out of the programme), may be considered as the expression of his most mature views. The limits of time which have necessarily to be imposed on such addresses probably accounts for the somewhat condensed form in which many of the sub-divisions are treated, a restriction which is sometimes regrettable in view of the author's great wealth of experience and his extensive acquaintance with the literature of the subject.

Assuming that the anatomy and physiology of the skin, as regards its nervous supply, allow of the possibility of a neuropathology of eczema, his special object has been to determine in how far clinical and pathological-anatomical facts point to the importance of this factor in the outbreak of the eruption with regard to its various stages, and especially as to the origin generally of the affection which is known as eczema.

One of the first points to settle before entering into such a discussion is naturally as to what eczema is, and what is its real nature, whether it is purely and simply a skin disease caused by the action of various causes producing certain changes in the cutaneous tissues, or an affection which is dependent on some set and determined condition, or disposition, or alteration of the organism itself. This question, so primary as it is, is still one to which dermatologists of great experience give answers of the most opposite character, some regarding it as purely local, others as purely constitutional, others again as combining both these factors. The characters of the disease, as presented clinically, are so protean that it would be impossible to define them with anything like conciseness; they are, however, as seen in their composite association, so peculiar and distinctive that no one would feel disposed to doubt the diagnosis when made by a dermatologist of experience.

But in conjunction with these local lesions we observe in many cases disturbances or diseased conditions in other organs of the body, which clinical experience leads us to connect with them in a certain causal relationship, conditions such as anæmia, lithæmia, the scrofulous and gouty diathesis, high arterial tension and various disturbances of other organs, as the gastro-intestinal tract, the liver and kidneys, together with certain nervous phenomena. They are present in very varied degree, sometimes obtruding themselves on our notice, at others being found only after careful investigation. None of them actually belong to eczema, but all are found from time to time in such close association with it as to leave no doubt but that they are actual factors in its origin. But why they should determine an outbreak in one person, whilst another, even though far more severely affected, remains free, is a problem to which our present want of knowledge of the active and fundamental causes of eczema permits no answer. The true cause lies possibly in the local nature or disposition of the skin itself, in consequence of which it is only able, owing to certain definite changes, to take on this special form of inflammatory reaction, whether provoked by the action of external irritants or of neurotic or other disturbances of the nutrition. This disposition is described simply as "eczematous," a term which by its vagueness sufficiently represents our ignorance of the actual changes which are taking place.

In estimating the influence of these concomitant conditions it is most important to distinguish those which are merely predisposing from those which are actually causative, and thus to avoid the danger of the *post hoc* fallacy. For example, in examining nervous symptoms which may accompany an attack of eczema, it must be considered whether possibly (1) the coincidence is accidental; or (2) if both affections are perhaps due to one and the same cause; or, again (3) if the nerve lesion has just given the requisite excitation in an individual who is predisposed to eczema; or (4) whether the influence of the nervous disturbance has been to set in movement a chain of organic changes, the last link of which is the appearance of the eruption. In none of these cases could the nerve affection be rightly described as the cause of the disease, and even when the outbreak apparently follows directly on some considerable "strain" of the nerves, such a shock, injury or disease, the greatest care must be exercised in ascertaining any causal connection between the two conditions, since we so seldom observe that the development of an eczema follows directly on these. Again, only a very small percentage of the enormous number of those who suffer from eczema present any nervous symptoms whatever, and the proofs of connection between eczema and the various other abnormal conditions of which mention has just been made are far more convincing and far more general than those which point to connection with lesions of the nervous system. Still, there is much more weighty evidence of the existence of such a relationship, and the neuropathological side of many cases of eczema is one which it is most advisable to consider in formulating the plan of treatment to be adopted.

Itching may be taken as a striking instance of a neurotic factor. It may, perhaps, be due in many cases to the pressure of effused fluid on the nerve endings, and cease when this exudes; but in others it precedes the outbreak of any eruption on the skin, and may persist when the eruption has passed. Most troublesome and obstinate pruritus accompanies many cases of erythematous eczema of the face, in which scarcely a trace of infiltration is present.

The supply of facts which bear on the relationship of eczema to lesions of the nervous system is so large and of such varied import that some schematic division of them is necessary for their proper consideration. They may be divided into (1), anatomical, physiological and pathological causes, and (2), clinical considerations based on published reports of cases.

In the first group comes the rich nerve-supply of the skin, which furnishes filaments to the cells of the rete, the gland cells, intercellular spaces, hair-follicles and lymph-spaces. The influence of the vasomotors on the blood supply and nutrition of the tissues, and on the origin of morbid conditions is as well marked in the skin as elsewhere. The influence of the sympathetic on numerous normal and morbid processes in the body has been shown to apply equally to the skin and its glands (Eulenburg, Guttmann, E. L. Fox), and the neuropathological side of many skin diseases has in the last few years been worked out so fully (Rendu, Testut, Leloir, Schwimmer, Kopp) as to admit of no further doubt.

Unfortunately, the pathological-anatomical grounds for the supposition of a nervous origin of eczema have been but little investigated, and the researches of Colomiatti still furnish almost our only knowledge of the condition of the peripheral skin nerves in this affection. He found actual changes in the nerves in cases of papulo-squamous eczema, which disappeared in great part when the disease had passed away, and Leloir has confirmed his discovery.

The clinical grounds are far more complete and more interesting, and facts bearing upon them have been published in large numbers. In order more readily to examine their relations they may be classed under five headings :—1. Neurasthenia or nervous exhaustion; 2. Nervous and physical shock; 3. Reflex phenomena of (*a*) internal and (*b*) peripheral origin; 4. Neuroses (*a*) organic (*b*) functional; 5. Pathological conditions in the brain and cord.

1. *Neurasthenia* is a very marked cause or predisposing cause of eczema, and many cases have been observed in which eczema immediately followed long lasting nerve strain, such as nursing sick people, anxious and exhausting work, sleepless nights produced by trouble or sorrow, &c., where the eczema varied directly with the nervous depression, disappearing as soon as the strain was removed, to reappear with its recurrence. A reference to a carefully prepared statistical table shows that eczema is most prevalent in private practice in men between the ages of 25–45, that is in those on whom the nervous strain of life falls most heavily, and that the cases which occur at that time comprise 40 per cent. of the whole of the cases of eczema in the male occurring between birth and extreme old age. The number of persons between 25-30 years of age make up but 7·5 per cent. of the general population, but the percentage of eczema cases in these years is 8·3 per cent., and this ratio continues up to the age of 60. In hospital practice the female patients preponderate between the ages of 10 to 60 (probably owing to their greater opportunity of attending the hospital.—H. G. B.). The exact nature of the connection between the neurasthenic condition and the development of eczema is unknown, but clinically the connection has long been recognized. Wilson speaks of "nervous debility," and Hebra, T. Fox and others of "deficient innervation"; indeed, Ferd. Hebra, who is so generally regarded as the leader of the purely local doctrine of eczema, declares his conviction that "morbid innervation plays the chief rôle in the development of eczema."

The general neurotic nature of the cause is further demonstrated by the therapeusis, nerve tonics (arsenic, strychnia, quinine and phosphorus, iron, cod-liver oil, &c.), ergotin (vaso-motor constriction) and galvanism being all of recognized value in treating eczematous conditions.

2. *Nervous and Physical Shock.*—The effect of shock in the production of eczema has so often been demonstrated by published reports (Meyer, Leloir), as to place it beyond all further doubt. Long lasting trouble and sudden emotion, the

horrors of a siege, a commercial panic, &c., are cited as causes which have immediately determined attacks.

3. *Reflex influences* are well known to be capable of exciting eczematous outbreaks, as, for example (*a*) *from internal causes*, the eczema connected with dentition, with gastro-intestinal irritation (food, intestinal worms), with menstruation (Danlos, Raciborsky, Tilt), and pregnancy (Hebra, and many others), and with urethral stricture (Bangs). The frequent disappearance of eczema about the eyes when the strain caused by abnormal refraction is removed by the use of suitable glasses, furnishes another instance in point.

The reflexes (*b*) *from external causes* are not quite so striking, but still convincing. As examples may be quoted, the development of eczema in distant parts of the body, easily explained as being due to the reflected irritation of a local agent (*e.g.* a burn); the tardy development of symmetrical patches of acute eczema arising from reflex action in the cord; the spread of the eczema in scabies far beyond the area infested by acari. These cases are sometimes explained as being due to the effects of scratching simply; but Bulkley has shown by observations made on himself that pruritus is largely of reflex nature, and that almost invariably the irritation of one part of the skin is followed or accompanied by a pronounced sensation in some near or far removed spot.

4. *Neuroses.*—In immediate connection with the last group stand those cases in which eczema is seen to occur with diseases or affections of the nerve trunks, whether as concomitant phenomena, as after-symptoms, or as direct results. This class may be separated into two divisions.

(*a.*) Eczemas accompanying organic neuroses. As examples may be taken the eczematous eruptions which follow on nerve wounds, such as those from gunshots, which were frequently noticed in the American civil war; those which follow from changes in the peripheral nerves, and from traumatic neuritis (amputations, contusions).

(*b.*) Eczemas accompanying functional neuroses. The occurrence of eczema in direct connection with neuralgia is not unfrequently noticed among private patients. The two affections may occur together, or the eczema develop on the sudden cessation of the pain (Cavafy, Eulenberg), or alternate with migraine (Lailler). A very interesting case is cited of a young widow who undertook the sole editorship of a paper as a means of livelihood. Excessive strain and constant writing always caused neuralgia of the right arm, which was followed by the development of papular eczema of the dorsal surface of the upper arm, and radial surface of the forearm. When the work was suspended for a time both neuralgia and eruption disappeared, but reappeared whenever hard work was recommenced. Similar cases are not uncommon.

5. *Encephalitis and Myelopathy.*—Eczema originating in connection with disease of the brain and spinal cord is very rare, if indeed it ever occurs. Nicol has observed the frequency of eczema among the insane, and Févres asserts that the prognosis as regards the insanity is always more favourable if the eczema can be readily cured. No connection between eczema and inflammatory or neoplastic processes in the brain has ever been noticed. Eczema has been noted as occurring in affections of the cord, such as tabes, acute and chronic myelitis (Charcot, Vulpian, Purdon), and after injuries of the medulla (Weir, Mitchell, Covyba), but the proofs of the direct connection of the two conditions are as yet too slight to be of much importance.

In estimating the part played by any of the internal conditions in the origin of eczema it is of course essential to clearly understand what is meant in the definition of this term. As Bulkley understands it, it is quite distinct from all the various forms of irritation of the skin which are produced by physical or mechanical influences, or by chemical or parasitic irritation. These lesions, which he designates as simple dermatites, he distinguishes from true eczema by the fact of their disposition to disappear as soon as the causal irritation is removed, or its capacity for action no longer manifested. One of the most striking developments of the theory of the dependence of eczema on purely local causes is the condition which has been named by Unna "eczema seborrhoicum." To Unna's conception of this affection Bulkley offers, after long consideration and the investigation of many cases, the most strenuous opposition. The most typical cases, those which develop on the chest and back, he considers still to be "seborrhœa," and many of the other less pronounced cases were easily diagnosable as ordinary forms of eczema. As to the parasitic nature of "eczema seborrhoicum" he offers no opinion, but its manifestations and course are entirely different from those of typical eczema. If an eruption does occur in this so-called seborrhœic eczema, which is called forth by the action of a parasite and cured by antiparasitic measures, then it is a dermatitis and not an eczema in the real and correct sense of the word. The conception of the subject is confused, and the difficulties of its study are increased by allowing an affection to pass as eczema which has a simply local character.

Excluding therefore all doubtful lesions, the three chief recognizable forms into which eczema is divisible are those into which it has clinically long been divided, viz. (1) the acute; (2) the chronic; and (3) the subacute, where acute exacerbations occur in connection with chronic patches. That eruptions of eczema, as thus understood, can occur as the result of certain conditions and disturbances of the nervous system, is, after the observation of many and various observers, no longer doubtful. It can arise, moreover, from purely nervous influences *de novo*, and in a subject who has never before suffered from the disease, and can under the same influence be continued or provoked to fresh relapses.

Following the rubric which was given above, it may then be briefly stated that eczema has been observed—(1), in connection with or resulting from mechanical injuries of the chief nerve tracts; (2), in connection with or alternating with functional disturbance of the chief nerve paths; (3), in connection with or as a consequence of peripheral reflex irritation; (4), in connection with or as a consequence of internal reflex irritation; (5), in connection with or dependent upon nervous or psychical shock; (6), in isolated or repeated connection with neurasthenia or nervous debility.

Of the *modus operandi* of these nervous influences nothing very definite is at present known, but the most fitting of the many which have been framed is that by Vulpian (which Leloir quotes, and to which he gives his approval), according to which it consists of a greater or less diminution of the trophic influence which the nervous system exerts on the tissues. This diminution is brought about either directly (through destruction of the nerve fibres or of the trophic centres), or reflexly (through depression of the activity of the trophic centres under the influence of the centripetal irritation of these centres).

Simple contraction and dilatation of the capillaries is insufficient to account for more than such conditions as erythema, roseola, urticaria, &c. The nerves which affect the nutrition and renovation of the tissues must necessarily take part in the further changes which occur in eczema; it must be, as Schwimmer describes it, a trophoneurosis of the skin. In order, however, to be able to accept this view, it is by no means necessary to postulate the existence of a separate set of trophic nerves; their presence has never yet been demonstrated, but that a trophic influence must exist is sufficiently proved on clinical grounds.

Our knowledge with regard to the action of the sympathetic is in the same condition. Its action is undoubted, but owing to the enormous difficulty of obtaining primary cases for investigation, actual pathological proof is confined to one case by Marcacci, in which a patient suffering from acute universal eczema died from pneumonia of the right side. At the autopsy the upper cervical ganglion of the sympathetic as well as the cœliac plexus showed an easily recognizable hyperæmia, which was still more evident on microscopical examination; the nuclei were increased in number, the protoplasm, owing to the lateral pressure exercised by the nucleoli, had a granular appearance, and in the intercellular spaces there was a pronounced pigmentation. These appearances may, of course, have arisen from the pneumonia as much as from the eczema, and the proof is not therefore at all complete, even though clinical grounds support it, and the favourable results of galvanization of the sympathetic or of central galvanization in many cases of obstinate eczema.

The important question which is waiting for solution is that as to how far the trophic and angioneurotic phenomena depend upon an increased activity of certain nerves and ganglia which are recognized as centres of lower rank, and in how far they depend upon deficient control over the processes of life and conditions of health which are under the influence of the nervous centres and ganglia.

It is known from experience that local and other agents which at one time produce in a patient an outbreak of eczema, will at others produce no such result, and we often recognize that at the time of the outbreak the person in question was in low general health, that, in other words, a depression of the general vitality had taken place, in connection with which came a diminution of nerve activity, leading to want of self-control, and in young women possibly to hysterical symptoms. In precisely the same way do the higher nerve centres (which indisputably control, in greater or less degree the lower centres directing the animal processes of nutrition, assimilation and metabolism), in consequence, perhaps, of long lasting strain, nervous or psychical shock lose their regulating influence over the organic processes, and irregularities arise in various organs which are known as disease. In this way it is explicable that a local effect which at a certain time induces in a patient a local dermatitis, in another patient and at another time will induce an inflammatory affection which continues in the form of an eczema.

Seeing that the nervous system plays such an important part in the causation of eczema it becomes easier to understand that other elements, *e.g.*, the various disturbances of the digestive and other organs, can assume the importance of a real fundamental cause of the affection.

[In the concluding sentence of his very interesting and instructive address Dr. Bulkley assigns to others the task of dealing with the influence of diathesis and parasites as causes of eczema. By his definition of the term he clearly indicates his own views as to the part played by parasites in the causation of this disease. They do not cause eczema, but only set up a dermatitis. There are, however, very frequent forms of eruption which develope papules and vesicles, may desquamate and form thickened, more or less reddish scaly patches, which occur often in persons of excellent general health, and are cured rapidly and permanently by antiparasitic means alone. The acute lesions resemble in every way those of constitutional eczema, especially when these latter have, probably owing to a parasitic infection, taken on a typically circinate creeping form.

Why should these two conditions be stamped as two entirely different forms of disease? The reason that the dermatitis ceases when the cause is removed is hardly satisfactory, for surely this very general axiom in regard to cause and effect must apply to neurotic eczema in equal degree. If no better clinical distinction can be found, it would seem that Dr. Bulkley is rather begging the question when he imposes so close a restriction on his definition of the term eczema before beginning to treat of the limits of its etiology. The upholders of the purely parasitic theory of eczema would certainly have a right to look upon some at least of the cases which he claims, on the ground of a confessedly somewhat hypothetical influence, as examples of neurotic eczema, as being with more probability instances of parasitic eczematous dermatitis. And, judging from clinical experience, the appeal *ad juvantia* would very frequently prove to be in their favour.

Nor again does Dr. Bulkley seem to have drawn a sufficiently clear line between acute and chronic (class 2) eczematous eruptions. There are conditions of the skin which exactly resemble the end results of some acute constitutional eczemas, chronic infiltrated, itching patches, which have never throughout their whole course presented symptoms of acute erythema, papulation or vesiculation, persist for almost an indefinite time, and are removed by the action of keratolytic and antiparasitic agents. They are claimed by Dr. Bulkley as eczematous lesions, due to the action of nerve and other internal influence. For the most part they are certainly entirely local lesions, and probably of purely parasitic origin. The same question applies also to them as to the acute forms.

Is it not possible that the pathological processes which are included under the somewhat vague denomination eczema may be equally well excited by external irritation as by internal? Analogies bearing on this point are not wanting among other dermatoses.—H. G. B.]

A NEW METHOD OF STAINING THE BACILLI OF RHINOSCLEROMA.

Professor Mibelli (*Monatshefte für prak. Dermat.*, 1 April, 1891) finds that the following method of staining the above organisms gives excellent results:—He employs the alum-carmine prepared by Grübler, according to Grenacher's method, using a 4 per cent. solution in hot water. The sections are placed in this stain for about an hour, *i.e.*, sufficiently long to obtain a good staining of the nuclei. They are then washed in water and treated in the ordinary manner with alcohol, preparatory to mounting in Dammar varnish. They may remain twelve to twenty-four hours in the staining material without injury, and they may also be treated with an alcoholic solution of sulphuric acid after staining without producing any important change. In each instance when the nuclei were well stained he found the bacilli excellently coloured, and all the changes in the tissue were well brought out. He recommends the thinnest sections for examination. He affirms most positively that the ordinary unchanged infiltration cells in this affection do not contain bacilli.

ALFRED EDDOWES.

MULTIPLE PIGMENTED SARCOMA OF THE SKIN. J. A. FORDYCE. (*Journ. Cutan. and Genito-Urin. Dis.*, January, 1891.)

Dr. Fordyce reports an interesting case occurring in a sailor. The disease began in May, 1890, and was attributed by the patient to a mental shock, which was so severe as to be followed by unconsciousness, and which had been succeeded by attacks of epistaxis for some weeks. The lips had also been observed to bleed when washed or rubbed. When the hæmorrhages ceased, he had noticed dark red spots on the calf of the left leg, and a few days later similar ones on the left thigh. The right lower extremity shortly presented the same symptoms, and finally the hands and arms became affected. All the lesions had developed in a week, underwent no change in size, and were accompanied by occasional itching. No new ones appeared until a few weeks before patient was seen by Dr. Fordyce. No hæmorrhages had occurred since the onset of the disease. The patient's general health was fair, he had lost some weight, and the hands and feet became œdematous after hard work. The temperature was also at such times elevated somewhat. The growths were found on examination to be almost symmetrically arranged on the extremities, consisting of nodular masses, dark blue or almost black in colour, and bluish-black, narrow bands of infiltration, five to seven centimetres in length. Both wrists were encircled by bands, three to four centimetres wide, of nodular infiltration. The growths were firmly seated in the skin, not sharply defined. Some of the darker tumours showed distinct central depression and scaling as though undergoing involution, while at their periphery more recent nodules of a lighter colour were seen. There were no evidences of past or present ulceration. The inguinal and epitrochlear glands were enlarged to the size of a small marble. The heart and abdominal organs were normal. Condition of urine normal.

Microscopical examination showed the nodules to consist of a stroma of small fusiform cells arranged in bundles, large numbers of blood-vessels, the appearances being somewhat those of a cavernous angioma. None of the bacilli reported by Pringle were found in the capillaries and sweat ducts and glands, nor was any other form of micro-organism. The patient had been given arsenic internally and hypodermically for four months without any special action of the drug having been noted on the disease.

GEORGE T. ELLIOT, M.D. (New York).

ON PSOROSPERMOSIS FOLLICULARIS. S. LUSTGARTEN. (*Journ. Cutan. and Genito-Urin. Dis.*, January, 1891.)

The case reported in this article was the one first described by the author at the Berlin Congress in 1890, and subsequently by Dr. L. D. Buckley under the name of Psorospermosis follicularis. To Lustgarten belongs the credit of being the first to demonstrate the presence of the psorospermia in microscopical preparations from this patient, who has been a subject of study for many years, and the object of various diagnoses.

Lustgarten found the psorospermia especially in the lower end of the follicular plugs. Here they occurred in small groups, some of which were apparently free, while many lay within epithelial cells, the nucleus of the latter being displaced. The central portion of the cell was occupied by one, more rarely by two psorospermia. In the upper part of the plug, the free lying psorospermia predominated.

The nuclei of some of these bodies took up staining. Efforts made to discover anything in regard to the propagation of these psorospermia were entirely negative.

Sections of the skin showed the orifices of the ducts of the sebaceous glands and the hair-follicles dilated and filled with yellow, glistening laminated horn-like masses, containing numerous nuclei, and forming elevated conical projections above the surface of the skin. Scarcely any traces of psorospermia found. The walls and inferior portions of ducts, especially in hair-follicles, seemed to tend to proliferation, and in places this was sufficiently pronounced to suggest epithelioma.

The sebaceous glands and the hair-follicles were normal as well as the sweat-glands. The rete was broadened and hypertrophied, and at various depths one or more psorospermia were seen.

The papillary portion of the cutis was densely infiltrated with small cells and a considerable number of pigmented cells.

Lustgarten thinks that we are justified in considering the psorosperm cells as representing cells of a low animal form. He does not think that they are either endogenous cell formation nor the product of colloid, or mucoid, or other form of degeneration. He grants that strict proof has not yet been furnished that the psorospermia stand in etiological relationship to the morbid process, inasmuch as their cultivation and inoculation on man or animal has not been made. Still he thinks that the probable inference is that they are, for the reason that we have on the one hand a particular pathological process, and on the other the constant presence of a particular micro-organism. A long series of analogous cases forces the acceptation of causative relationship between micro-organism and disease as the simplest explanation of the facts observed.

GEORGE T. ELLIOT, M.D. (New York).

PSOROSPERMOSIS. H. G. PIFFARD. (*Journ. of Cutan. and Genito-Urin. Dis.*, January, 1891.)

Dr. Piffard reviews the literature of Psorospermosis, mentioning the diseases in which it is claimed that these bodies have been found. He then proceeds to examine the question from the point of view of the behaviour of the bodies to polarized light, the line of investigation having been suggested to him by a statement of Wickham's, that the psorosperms were made specially evident by the use of picric acid. Piffard applied this test to sections obtained from the same case, already reported by Buckley and Lustgarten, and found little or no effect produced. He concludes, therefore, that the "psorosperms" cannot always be identical in chemical constitution, and that possibly they might present at one time features similar to rete cells, and at another have the character of horny epidermis. In other words, the latter condition would be found in the older, the former in the earlier stages of development of these bodies, the pathological process being in reality nothing more than a corneous degeneration of the cells of the rete. Piffard used polarized light, owing to its pre-eminent capability of differentiating between the rete and corneous cells. In a thin vertical section of normal skin, the stratum corneum with this light would be brilliantly illuminated, the rete invisible. He found also that in an epitheliomatous pearl, the central mass of stratified cells, which had undergone corneous degeneration, was traversed by polarized light, while the latter was intercepted by the proliferating rete cells surrounding the pearl. In other words, corneous cells, pathological in formation, behaved with polarized light in the same manner as did normal horny tissue.

The central superficial and older portion of a molluscum contagiosum he also found permitted transmission of the light, while the deeper peripheral and younger portions behaved like rete cells. From this, Piffard concludes that the so-called molluscum bodies, or psorosperms, are not (so far as molluscum contagiosum is concerned) animal parasites, but rete cells undergoing a species of corneous degeneration, and he claims that this confirms the views which he advanced some fifteen years ago.

In regard to Darier's disease, Piffard says that the opportunities for its study have been too limited to enable him to offer a decided opinion, but he cannot help expressing his belief that further studies will result in bringing it in the pathological group of epithelial degenerations rather than in that of the parasitic one.

George T. Elliot, M.D. (New York).

BALSAM OF PERU IN TUBERCULAR ULCER. Dr. Vladimïr A. Thiele. (*Vratch*, No. 50, 1890, p. 1146.)

Dr. Thiele, of St. Petersburg, says that he has obtained excellent results from treating tubercular ulcers by a frequent and thorough application of gauze soaked in Peruvian balsam. Under the influence of the antiseptic agent the discharge rapidly assumes a better appearance and becomes even less abundant, bleeding granulations disappear, and the ulcer quickly heals, while the patient's general state markedly improves. In cases of simple ulcers the balsam is said to be useless.

Valerius Idelson (Berne).

CAUSTIC LEAD IN ACUMINATE CONDYLOMATA. Dr. L. S. Tchernomordik. (*Meditzinskoïë Obozrenïë*, No. 1, 1891, p. 79.)

Dr. Tchernomordik, of Kertch, recommends caustic lead as an excellent means for quickly destroying acuminated condylomata. The following formula should be used:—

℞ Plumbi oxydati . . . . 0·25 grammes.
Solutionis potassæ causticæ (33 per cent.) . 7·5 grammes.
M. D. S.—Shake well before using.

The parts should be first cleansed by means of a brush moistened in some antiseptic lotion, and then thoroughly dried, after which the warts, each separately, are painted (by means of a cotton-wool swab) with the lead solution, care being taken to avoid any superfluous cauterization of sound cutaneous areas. In about five minutes the new growths blacken and become formless mucoid masses, which can be easily removed by means of pieces of dry cotton-wool. As a rule, a single application proves sufficient for complete destruction of the warts down to their base. In some rare cases, however, the procedure has to be repeated twice or thrice, at intervals of two or three days. The remaining raw surface should be powdered with iodoform, the small wounds healing completely in from three to ten days.

Valerius Idelson (Berne).

THERAPEUTIC NOTES.

ON RETINOL AND ITS EMPLOYMENT IN MEDICINE. By F. G. Vigier.

This substance, which has the formula $C_{35} H_{16}$, sp.g. 0·900, b.p. 238°, is a brown or yellow fluid which is obtained together with the bodies (retinaph, retinyle, and metanaphthalin) by the distillation of resin. It is preferable to employ the darker variety, which is prepared from a cruder resin. The body has been known since 1838 (Pelletier and Walter), but has only recently been investigated therapeutically by Balzer and Barbier. In appearance it somewhat resembles olive oil: it is greasy and slightly bitter; its reaction is usually faintly acid owing to traces of pinic acid, but, well prepared, it does not turn the colour of litmus; its odour is faint and peculiar, approaching that of a pine wood.

Retinol lends itself to a great number of pharmaceutical preparations. It has the great advantage of dissolving a large number of bodies employed in therapeutics as antiseptics, or of mixing easily with them. Its antiseptic action may be easily reinforced, and it is an excellent non-irritating excipient. When applied to the skin, or to healthy mucous membranes, it provokes neither burning nor pain, nor vesication of any kind. Among the substances which it dissolves are salol, 1·10; iodol, 1·50; naphthol, 1·50; aristol, 1·50; camphor, 1·20; chrysophanic acid, 1·40; cocaine, 1·80; codeine, 1·40; strychnine, 1·40. Camphorated naphthol is very soluble; oil of cade mixes in all proportions; carbolic acid, essence of turpentine, alcohol and ethers are equally miscible. Resorcin should be dissolved in glycerine and iodoform in ether before being mixed with it; iodine dissolves, but soon forms a resinous body, which is precipitated.

In vaginitis, tampons may be used, impregnated with pure retinol, or pessaries, prepared from an equal mixture of retinol and white wax, or of retinol and soap. Resin, tannin, or borax may also be added.

Retinol mixes easily with fatty bodies, with oils, vaseline, lard, lanoline, oleonapthine, glycerine, and in this way may serve for the composition of a large number of pomades.

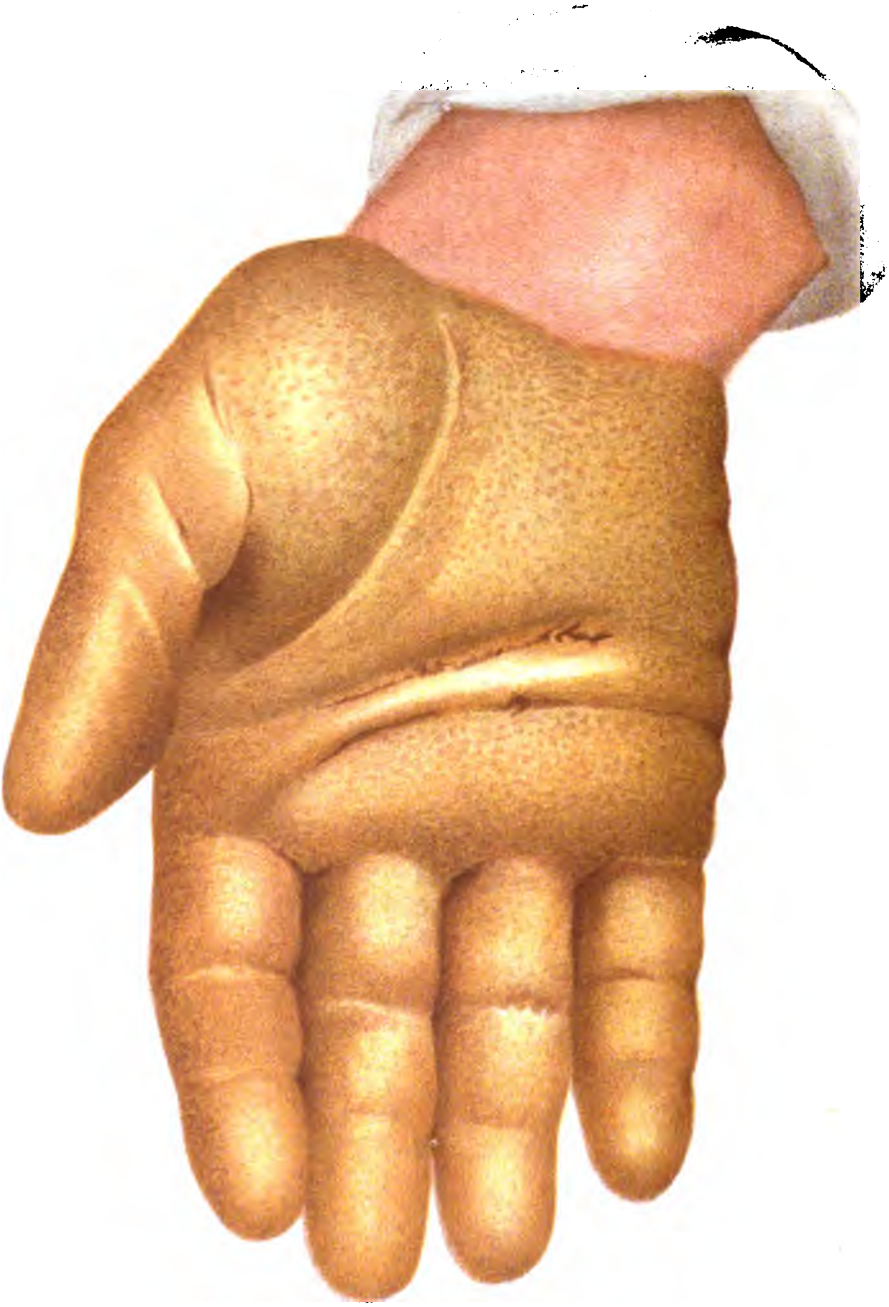
In certain cases retinol may advantageously replace these bodies as an antiseptic excipient; in others it is necessary to associate them with it in order to obtain more coherent and less liquid products. Thus,—

Retinol,	10	Retinol,	8	Retinol	
White wax,	4	Resin,	8	Resin	
Cacao butter,	6	Lanolin,	5	Lanolin	āā 5

It has been used with success not only in diseases of the skin, but as a dressing for the eye and its appendages, in otological (otitis media suppurativa) and rhinological (ozœna) work.

In addition to its antiseptic and non-irritating qualities, it has the further advantages that it does not turn rancid, and that its price is moderate.

The results obtained from it have been very satisfactory. In blennorrhagic vaginitis it abridges the treatment and brings about a cure in from twelve or fourteen days; in gonorrhœa in the male it produces a prompt improvement, acting much more quickly on the discharge than most of the agents hitherto employed. In neither does it give rise to any pain or irritation.



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THE BRITISH
JOURNAL OF DERMATOLOGY.

JUNE, 1891.

TYLOSIS PALMÆ ET PLANTÆ.

BY H. RADCLIFFE CROCKER, M.D.,
Physician to the Skin Department at University College Hospital.

THE condition in which a thick horny plate covers the whole palmar and plantar surface is rather a rare one, and may be either acquired or congenital, the latter being the more usual form.

The accompanying coloured plate delineates a well-marked example of the acquired affection, which is indeed anatomically indistinguishable from the congenital condition. The history of the case is as follows:—

The patient was a woman, æt. 56, the wife of a clerk. She had been suffering from severe and almost universal pemphigus for eight months previous to her coming under my notice on March 5th, 1890.

The disease began with itching all over the body in November, 1888. The irritation increased in intensity in spite of treatment, but bullæ did not appear until March 1889, coming first on the arms. They were poulticed, and a whole crop came out. On April 1st she was admitted into St. John's Hospital, in a very bad state, and was there until October, when she went into the country. She was not, however, much better, except that the bullæ were not so large and numerous, while the itching was as bad as ever. Up to two months before leaving St. John's Hospital her skin was very dry—"nothing would make her sweat," then she began to sweat profusely, and in October the skin of the palms and soles began to thicken and gradually attained their present condition. She had lost much flesh, having weighed twelve stone just before she went into St. John's Hospital. On admission to University College Hospital, on March 10th, 1890, the patient looked worn and thin. The whole body was thickly covered with erythema patches of a bright red colour, and mostly of a circinate form, the intervals between the patches were very small on the trunk, while on the legs they were practically free, but there were none on the face; from subsequent observation they represented the sites of previous bullæ.

Numerous bullæ, from a pear to a pigeon's egg in size, were present on the trunk, and a few on the limbs; some were in irregular groups of from three to five, but many were scattered singly about; the bullæ were quite tense and contained clear serum.

The eruption was attended with intense irritation, which came on in paroxysms and prevented the patient from sleeping. She perspired profusely, her night-dress being saturated several times a day and the sheets quite damp, but the smell was not offensive. Her palms and soles were in a condition of extreme epidermic thickening; the horny layer was an eighth of an inch thick, yellowishly translucent, but not hard, on account of the hyperidrosis. Over the knuckles, both interphalangeal and metacarpal, the corneous layer was also hypertrophied and pitted. The nails were unaffected. The patient had taken a large quantity of arsenic while in St. John's Hospital, but she was sure there was no thickening of the palms and soles until the sweating set in. There was no albumen or sugar in the urine and all her internal organs were sound. A variety of treatment was adopted; quinine in five-grain doses, with effervescing citrate of potash, cannabis Indica and bromide, at night; liq. opii sedativus ♏. vij. ter die, and arsenic and bromide of potassium were given at different times. To check the sweatings, injections of ♏. ij. liquor atropinæ, ½ °/o solution, were given daily, afterwards increased to ♏. iv. With these the sweatings diminished considerably, and when they did occur, came on only in the morning, and lasted two hours.

On May 21st liq. arsenicalis and bromide were given, and the perspirations diminished soon after and ceased for a week, from June 7th to June 14th. The bullæ, however, gradually got more numerous after the atropia injections were stopped. At the end of June her general condition was much worse; she was thinner and weaker, but under tonics and good feeding improved, and by the end of July was well enough to be discharged, very few bullæ appearing occasionally. The skin was much paler and healthier-looking; the sweating was very little more than normal, and the palms and soles were much less thickened from using liq. potassæ lotions, but there was still much itching at times. Six months later she was seen at her own house, and many of her old symptoms had returned; the sweatings were almost as profuse as ever, the itching was most intense, and made her very weak and miserable from the loss of rest. The constant irritation, and consequent loss of rest, were evidently wearing her out. There were, however, but few bullæ comparatively; a few, half an inch in diameter, were present on the hands and feet, but on the trunk there were only vesicles the size of a millet seed. The epidermic thickening was as bad as ever on the palms, soles, and knuckles. Was this condition causally connected with the hyperidrosis, or with the arsenic, of which she had no doubt had considerable doses for weeks, if not months? I believe that it was from the hyperidrosis. Arsenic will no doubt produce a keratosis, but it is very slow in development, rarely comes on except in cases where arsenic has been taken for years, and begins in small foci round the sweat orifices, and may thus remain discrete for years. Even when it spreads, and the foci coalesce, the surface is not smooth and uniform, but more or less uneven, and sometimes "shotty" to the touch. A case, however, reported by Brooke in a paper on keratosis in this Journal* was probably arsenical in origin, and Brooke distinctly states that the surface was perfectly even, though it began in "points." The facts in favour of my case being not directly due to the arsenic, though it may have played a predisposing part, are that the thickening was diffuse and did not begin in points, and that it developed rapidly as compared to most arsenical keratoses, and, finally, the woman was sure that there was no thickening of the palms and soles until the sweating set in. At all events, the question of hyperidrosis being an etiological factor in relation to palmar and plantar thickenings is worthy of further investigation.† I suspect

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* Vol. III., No. 1, January, 1891.

† Pringle showed me a case in an early stage of development associated with hyperidrosis, which he will doubtless publish.

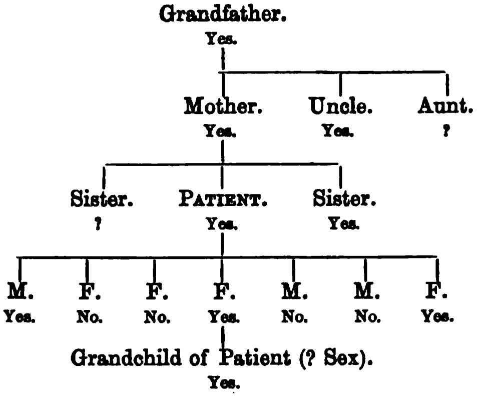
Brooke's Case 2 was associated with hyperidrosis, though he does not mention it. It is noteworthy also that his cases were in connection with lichen planus (but had not fully developed into a smooth surface), a disease in which the papules, as I have shown elsewhere, are seated at the sweat orifices. The commencement of arsenical keratosis in this position has been already mentioned. Hyperidrosis is not, however, sufficient in itself, as that condition is very common, and keratosis is rare; but we must confess our ignorance of the determining factor, though it is probably of trophic character.

More common than the acquired is the congenital form, which is generally first apparent when the child begins to go about. It is remarkable for the frequency with which it is hereditary through several generations, and shows also what Hutchinson calls family prevalence, *i.e.*, several members of the family are frequently affected.

The following case illustrates these and other features :—

Richard P., æt. 51, cabman, first came under observation in June 1888, while suffering from a widespread, but not universal attack, of pityriasis rubra. The whole surface of the palms was covered with a uniformly thick plate of horny epidermis of a yellowish-white hue, just like a layer of wax. It terminated abruptly at the side of the hand and fingers. The main lines of the hand were much deepened, with sloping sides, but the smaller lines were absent. There was also marked thickening of the horny layer over the extensor aspect of the joints of the fingers, most marked at the first interphalangeal joint. Except at the inner border of the arch of the foot, the soles were similarly affected, but the epidermis was thicker, with a greater tendency to split. The affected area exactly corresponded with the part of the sole which touches the ground in standing, the shape and size being represented by the impression of a wet foot. In the clear area there were a few corn-like formations, and on the palms were some shallow pits. He stated that this condition had existed from birth, and that every autumn blisters formed beneath the epidermis of the palms; they are about the size of a sixpence if undisturbed, but become very large if exposed to friction; they form in succession at intervals, and the whole epidermis shells off in about two months, leaving the skin thin and rather tender, but it gradually thickens again. The same phenomena do not occur on the feet.

The family history of this man is noteworthy, the disease being traceable through five following generations, as shown by the accompanying family chart:—



Thus there were not less than five generations affected, and at least two of three of the families. The yearly exfoliation of the palms and not of the soles is also very remarkable, but whether all the affected ones showed this feature could not be ascertained. A similar series, going through five generations, has been published by Horton Dale, of Ilkeston,* and going through three generations, by Unna.†

I have also seen another instance where father and daughter were affected, but the patient was too ignorant to know anything more of his family history.

These cases generally get reported under the name of "Ichthyosis palmaris et plantaris." Hebra calls it "Tylosis palmæ manus plana," and figures it in his Atlas.‡ Unna calls it "Keratoma," and Brooke, following Auspitz, classes all forms of epidermic thickenings under the title of "Keratoses." This condition having been described and figured by so great an authority as Hebra, in the interests of simplicity it is better to place these diffuse cases under the name he used, "Tylosis palmæ et plantæ," rather than introduce a new name, even if it is theoretically an improvement, which may not become generally accepted, and is then an additional stumbling-block to all who study the subject.

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* *British Medical Journal*, October 1st, 1887, p. 718.

† Unna, *Viertelj. f. Derm. u. Syph.* Vol. X., 1882, p. 281.

‡ Lief. X., Taf. 1.

The treatment of these cases is not very promising, though perseverance will often be crowned with success. Sometimes a spontaneous cure takes place, but as a rule treatment is required. The thickened skin should be soaked with hot-water compresses, (resorcin is a useful addition, in Brooke's opinion,) the softened horny layer shaved down, then 20 per cent. salicylic acid plaister (Unna) closely and continuously applied. After a few days the epidermis appears white and sodden, and can be easily removed. This process may have to be repeated several times before complete success is obtained. Congenital cases are still more obstinate, but even in some of these perseverance on similar lines has been ultimately successful.

The consideration of circumscribed epidermic thickenings must be left for consideration in a future communication.

ON THE EMPLOYMENT OF TUBERCULIN IN THE TREATMENT OF LUPUS, AND ON SOME OTHER NEW REMEDIES FOR THAT DISEASE.

An Address delivered before the Medical Society of Hamburg, on March 31st, 1891.

BY P. G. UNNA, M.D.,
Hamburg.

Gentlemen,—It is very difficult to speak to-day on the results of the application of tuberculin. Applause, unexampled in the history of our science, has been followed by just as intense a reaction, amounting to almost complete annihilation. Only a small section of physicians has not yet given up the hope of saving Koch's grand idea, the result of experiments on animals, by some modified method of its application, or by an improvement of the tuberculin. On the whole, however, the world of physicians is quite tired of tuberculin.

Two reasons especially induce me, in spite of this untoward circumstance, to come forward with my own personal experiences, not in the form of medical histories—you have heard them *ad nauseam*—

but in the shape of condensed results. In the first place, it is the conviction that we dermatologists, whose results are, on the whole, more favourable than those of other medical men, are specially called upon to continue strenuous investigations, as to the indications and contra-indications for treatment with tuberculin, and certainly, first of all, as to its mode of action on the skin.

What is daily observed and recognized as the regular consequence of injections with tuberculin must, however, also be assumed, *cum grano salis*, to occur in other organs ; it may be changed in the latter, quantitatively, and be concealed by other phenomena, but it must be present there too.

Then I am also induced to speak on this subject by the circumstance that, from the very first, I did not share the exaggerated expectations of the majority of the profession; a fact due to the simple assurance of Koch himself, that his remedy did not kill the bacilli, the latter being the very object at which we dermatologists had been for a long time attempting to arrive in the treatment of lupus. Any fairly experienced dermatologist, previously and with certainty, by simple external remedies, without any surgical assistance, could have obtained the flattening and smoothing down of a lupus.

By this knowledge I was not only saved from suffering disappointment, but must even to-day admit, after having treated about forty cases of skin disease with tuberculin, that my slight expectations have been not only fulfilled but surpassed.

In the first place, let us consider the question of diagnosis, which is certainly the most brilliant aspect of Koch's discovery. A tendency has recently been shown to underrate the importance of the remedy in this respect, and, as I believe, wrongly, both from a purely scientific as well as practical point of view. It is certainly true that other dermatoses, above all lepra and lupus erythematosus, also react to tuberculin. Only one of my four leprosy patients did not react to the ordinary doses employed in cases of lupus; the others did so, and in some instances severely, even with smaller doses than those ordinarily injected for lupus. I can also add a case of lupus erythematosus with " positive reaction " to the list of those already published. But it has already been proved, in the case of lepra as well as in lupus erythematosus, and I can confirm the observation to the full, that the kind of reaction is in these cases quite of a different character. The supposition of a specific effect of the tuberculin on tuberculous tissue is, therefore, not shaken, from a scientific point of view, but has rather obtained fresh support.

It is, however, practically of no importance whether merely one or a whole series of dermatoses react to tuberculin, but rather whether such skin affections, which were formerly the frequent cause of errors in diagnosis react, and in a precisely similar manner. I, for one, however, scarcely believe that the differential diagnosis between lepra and lupus, or between lupus and lupus erythematosus could ever offer any difficulties to an experienced physician. As is well known, errors of diagnosis between lupus and tertiary syphilis, especially when hereditary, occur most easily and frequently. Now, in regard to this point, tuberculin stands in a very favourable light, as almost all observers lay stress upon the fact that syphilides do not react at all. I, too, can confirm this in a case of a tertiary serpiginous syphilide. Lepra and syphilis, which under certain circumstances can be much more easily mistaken for one another, permit a certain diagnosis to be formed by tuberculin in those cases in which a positive reaction takes place.

The value of tuberculin stands consequently practically just as high for questions of dermatological diagnosis as it is scientific, and it will hardly be essentially interfered with by the discovery that other skin diseases also react to it. The solution of one disputed question by means of injections of tuberculin was especially of interest to me, *i.e.*, the question whether there exists a specific *tubercular eczema.* You all know very well that for ages the conception of a scrofulous eczema, or rather of an eczema as the expression of a general scrofulosis, has been very popular in lay circles, and even most physicians, by no means the elderly ones, contribute continually to the propagation of this popular belief by their opinion, that many, if not all, eczemas of children are of a scrofulous nature. Since the labours of Koch,—*i.e.*, since there no longer exists a scrofulosis independently of tuberculosis,—this conception of the "scrofulous eczema" is no longer so harmless as formerly. Since then it has become for dermatology a question of the utmost importance, theoretically as well as practically, whether or not there exists an eczema which rests on a "tuberculous foundation," *i.e.*, whether tubercle bacilli can also produce under certain circumstances an eczema;—a moist catarrh of the skin,—and nothing else. Such an eczema we should then be obliged to deprive of its harmlessness, and call it by its right name, *i.e.*, "a tubercular eczema."

According to the doctrines of the Vienna school, such a fine distinction is not of any great importance, and for this reason; that in the event of tubercular eczema being proved to exist, tuberculosis, as well as innumerable other causes, would be included in the etiology of eczema. For no uniform etiology of eczema exists for the Vienna school; physical and chemical irritations, inorganic and organic foreign bodies, external and internal causes can, in the eyes of that school, produce an "eczema," and indeed eczemas of any form, for all the different forms are said to be stages of one great disease—"the eczema."

This is the very opposite of the view which I entertain, and to which, as I am happy to state, already many distinguished foreign dermatologists, and many of the younger German fellow-workers, assent. I do not recognize any eczema as an uniform disease, but only individual eczemas, which differ from one another etiologically just as they do clinically and therapeutically. Among the types of eczema set up by me, two of the practically most important are the seborrhœic and the tubercular eczemas. Whilst the former type is recognized more and more among the dermatologists of all countries as a well-founded one, my description of the "tubercular eczema" has been objected to as an entity by very many; nay, by most. It is especially the distinguished French dermatologists like Besnier, Vidal, Leloir, Brocq, and others, who diagnose seborrhœic eczema in the same way as I do, and who consider my tubercular eczema to be a simple catarrh of the skin in lymphatic individuals, without any defined, and especially without any specific, tubercular character, and at the utmost, as only a gate of entrance for the tubercle bacillus.

You can see by this explanation how important for me a trial of the question by means of tuberculin was bound to be, because the obtaining of cultures of tubercle bacilli and inoculation experiments meet in these cases with quite special difficulties and sources of error. If it can, however, be settled, that typical tubercular eczemas react after the injection of tuberculin, and others, for instance, typical seborrhœic eczemas, do not do so, then there will probably not be any further doubt as to the tubercular nature of the former.

Tubercular eczema, in my own limited and specific sense, we find almost entirely in the case of children, seldom in young people, never in the aged. It always begins near the mucous orifices, viz., of the eyes, nose, mouth and ears, and in connection with conjunctivitis and keratitis phlyctenulosa, which are likewise suspected to be tubercular, and with photophobia, rhinitis or otitis media. It is always characterized by the œdematous and cushion-like, at first soft and afterwards firm, swelling of the affected parts of the skin, especially of the lower eyelids, of the upper lip, and of the sides of the neck below the ears, then by a constant and severe swelling of the neighbouring lymphatic glands. The latter are softer, pulpy ("markig") to the touch, and are much more voluminous than the hard, small gland-tumours of the neck, occurring in connection with some seborrhœic eczemas of the scalp. The skin affection itself shows neither typical small eczema vesicles, nor dry papules as primary efflorescences, but very superficial large vesicles which quickly dry up into scabs, after the falling off of which a profuse weeping with a quick reappearance of thick, yellow and brown scabs takes place. The subjective symptoms are very slight, the tubercular eczema being accompanied by very little itching as compared with the seborrhœic.

By the localization, the concomitant tubercular phenomena, the swelling of the lymph-glands, the œdema, the erythematous, profusely oozing vesicle and scab-forming character, and by the absence of itching, this eczema is so well and so simply characterized as hardly any other type of eczema is.* The dermatological policlinics see this form of eczema less frequently than those for diseases of the eyes, nose and ears, as the affections of these organs are already justly looked upon by the public as the starting-point and main factor. I am indebted for the material used for the trial of this question, for the greater part, to the friendly transference of patients from Prof. Deutschmann's policlinic to mine. There were seven cases—five children, and two young adults. They all exhibited the described symptoms, but in one case the tubercular eczema had developed in connection with a lupus, and all reacted to injections in a favourable way, which I will presently describe, whilst seven cases of typical seborrhœic eczema showed neither a general nor a local effect from the injections. One case (Bremmann), which showed in the face a typical tuberculous eczema, and at the same time on the head a circumscribed and typical seborrhœic scabby eczema, was especially interesting. Whilst the former reacted at once to the injections, the latter did not show the least change.

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* After having first called attention to this type in 1884, in my article on "The Eczema of Infancy" (*Deutsch. Med. Zeit.*, 1884, No. 43–47), I gave the first exact description in "Ichthyol and Resorcin" (*Dermatolog. Studien.*, 1 Reihe, 2 Heft., 1886, p. 49), and a few explanatory comments in my "Vorlesungen über allg. Pathol. der Haut," Kap. Œdem. (*Monats. f. p. Derm.*, Bd. X. No. 8, v. 4, 1890).

After these experiences I feel convinced that my conception of these eczemas is, up to the present, the best founded. If it were only a question of eczemas of different origin, which served only as portals of entrance for the tubercle bacillus, without the former having been called forth by the poison of the said organism, it would be difficult to understand why they did not behave just as passively in regard to tuberculin as others; as, for instance, the so common seborrhœic eczemas on the head. The same reasoning is, however, also applicable to the primary tubercular affections of the mucous membranes, above all to the phlyctenular inflammation of the eye with consecutive catarrh of the lachrymal duct and mucous membrane of the nose. These also reacted in all my cases in such a prompt way, that I cannot but look upon them as being also tubercular affections.

I now turn to the therapeutic aspect of the subject. Here it was, I believe, of service to me, that I could select from the very first the cases to be injected. I injected with tuberculin for the most part patients whom I had previously known for years, and whom I had already tried with a long series of other remedies. The first twelve of the seventeen cases of lupus which I have up to now so treated were old cases of lupus which had shown new nodules of lupus in the cicatrices, after having apparently for a long time been cured. The slight amount of lupus plasmoma,* of lupus tissue (Koch), which these patients had when they appeared for treatment accounted for the fact, that the symptoms after the injections presented a somewhat different aspect from the rule. But it was just through this difference that some phenomena, which had till then attracted less attention, became more striking. All clinical experience, as well as histological observations, had taught us to believe up to the present time that the favourable effect of tuberculin on lupus, *i.e.*, that the absorption and melting-down of the plasmoma, essentially runs parallel with the inflammatory disturbance lighted up on the periphery of the nodules. According to the unanimous descriptions of all authors, and according to what I have observed in my own patients, as well as in those of other physicians, nothing more of a necrosis, such as Koch described in his first publication, has been seen.* If lupus should ever really heal by necrosis, this would be a process by no means worthy of imitation, and the cicatrices would not be so beautiful as they are, as a matter of fact, after Koch's process. The plasmoma, the prominences of the lupus, can naturally only disappear by the entire or partial disintegration and absorption of many cells, but the necrobiosis of individual cells one finds everywhere, with every inflammation, in every healthy tissue; we must not call such a process necrosis. Moreover, I have, as a matter of fact, seen true necroses *en masse*, with the ordinary consequences of well-defined inflammation, after the injection of tuberculin, not with lupus, but with lepra.

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* For explanation of this term see page 192 *et seq.* of this number.

The inflammatory local disturbance is consequently, according to the accounts which we have received up to the present, the very essential point in the local effect of tuberculin; and it is of the highest importance that we should arrive at a correct understanding of this process. It has been pretty generally agreed that the general effects are the consequence of the local, as they follow them in point of time, and are also, as a rule, in proportion to them; but there are many exceptions.† There now very properly arises the question as to how this local effect takes place. Is this local effect on the *locus*

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* I take the word *necrosis* here in its ordinary sense, as indicating a killing of the blood-containing connective tissue. Pushed-off scabs are certainly dead epithelia, mixed with dead migratory cells and fibrin. But as the exfoliation *in toto* imitates the physiological process which takes place in the old epithelium, the formation of scabs is not included amongst the necroses.

† These exceptions from the rule show that there really always exists a personal factor helping to determine the degree of the general effect; which factor, generally speaking, is the same in the majority of individuals, so that in practice it may be neglected. When it, however, deviates strikingly from the normal, then we have to suppose a particular chemical constitution of the tissues of the individual. Thus I never exceeded the dose of 0·002 gr. in one very old standing, somewhat limited, lupus of the face, because regularly after every injection the same severe general phenomena (cerebral disturbances, nausea, headache, dyspnœa, erythema) took place, whilst the local effects were proportionately inconsiderable.

affectionis the main factor, or is it, on the other hand, dependent upon other processes taking place in the lupus, and therefore itself only a sequela? If it were the prime factor, then we should be obliged to ascribe to the vessels in the neighbourhood of the lupus a particular susceptibility for tuberculin; they would then alone, of all the vessels in the body, not only be paralyzed (which condition might perhaps be explained by their being newly-formed or pathologically changed vessels), but they would also have to suffer by the tuberculin direct inflammatory changes of an intensity such as is unknown in the whole history of lupus. This seems to offer to me great difficulties of explanation.

If, on the other hand, the inflammatory hyperæmia be a sequela of a primary disintegration of lupus tissue and of a primary absorption, then the inflammation as a simple inflammatory reaction of the vessels in consequence of these processes is easily intelligible. This, as it appears to me specially important, question will be decided as soon as we succeed in keeping apart the processes of inflammatory hyperæmia and absorption. If it can, for instance, be proved that a considerable absorption of lupus tissue takes place after the tuberculin injection without an inflammatory ebullition having occurred, then the absorption will also be in other cases the primary factor which brings about the inflammation. If we find, on the other hand, inflammatory local effects without an absorption of the tissue, after the reduction of the inflammatory swelling, then the independent existence of the inflammation resulting from the tuberculin on the *locus affectionis* is proved.

I have had occasion to note a surprising disappearance of lupus tissue in a considerable number of cases in which the inflammatory hyperæmia was either exceedingly slight or altogether absent. In four children suffering from lupus (Dreist, Karstens, M. Anders, Marks)—among them being one of extensive implication of the extremities in addition to lupus of the face—the plaques on the arms and legs, especially those on the forearms, hands and feet reacted very little, and sometimes not at all, with the ordinary hyperæmia, whilst the patches on the face showed a distinct reddening and swelling, or at least a slight redness on the border. One case of lupus on the back of the hand (Brede) behaved in a similar passive manner. All these cases had, however, already previously been energetically treated externally, and showed simply at the time distinct remnants of a lupus infiltration; they reacted, therefore, similarly to a case very much improved by prolonged treatment according to Koch's method. The regionary difference between the face (especially the cheeks) and the extremities is also easily explained by the physiologically much weaker "tonus" of the vessels in the skin of the face. This is only distinctly to be observed on the "remnants" of a lupus, not on florid untreated spots.

In all these cases a distinct decrease of the residuum of lupus infiltration was observed on the extremities just as on the face, although in the former position the improvement had been preceded by a very slight or no immediate positive reaction. This observation has been of so frequent occurrence that a special designation for this "anæmia improvement" of the lupus infiltration has been adopted, the so-called "negative reaction" after injection of tuberculin,—certainly not a very logical conception. Much more striking, and (as I will add at once) practically much more important, than the negative reaction of the lupus residua were the same negative reactions in the case of lupus cicatrices and diffuse lupus fibromata. I recently stated in the *Monatshefte für Prakt. Dermatologie** that cicatrices which spring up spontaneously, after insufficient treatment of lupus (cicatricial elevations, cicatricial keloids), possess a histological structure peculiar to themselves, and therefore ought not to be called cicatrices, but lupus fibromata, in contradistinction to the real lupus cicatrices which definitely end the whole lupus process. I can only add here that the larger and more diffuse forms of this lupus new growth which constitute the so-called "lupus tumidus" and "lupus elephantiasticus" possess exactly the structure described as found in the case of circumscribed lupus fibromata.

All these forms of the lupus fibromata disappear in a most marvellous way under the influence of tuberculin, and on the more obstinate parts of the skin of the extremities, without any hyperæmia having previously been developed. The following cases were specially instructive:—

A girl, 14 years of age (J. Anders), presented such a large keloid-like lupus fibroma of the upper lip and of the lateral parts of the cheeks, that the nostrils and the bridge of the nose were hidden behind it.

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* See abstract on page 192 *et seq.* of this number.

Two years ago I had obtained an improvement, which lasted for a short time, by repeated Vidal's deep incisions on the upper lip, which at that time was already free from nodules. Now the lip was far more enormously hypertrophied, like an elephantiasis ; no more lupus nodules had appeared since that time ; but a lupus of the gums not quite cured had been followed by an extensive lupus of the palate. The lupus fibroma disappeared here visibly under Koch's injections. After about ten injections the nose reappeared above the lip, the nostrils became free again ; after fifteen injections the lips could for the first time again be shut, the gum of the upper jaw having remained uncovered by the ectropic upper lip for years. No positive (*i.e.*, inflammatory) reaction of the affected parts ever occurred. Only after the sixth injection of 0·007 gr., when the fibroma was already considerably decreased in size, did a spot the size of a pea to the right of the nose become red and covered with scab ; a plasmoma nodule which had till then been hidden under the fibroma appeared on the surface and healed definitely.

A girl, 13 years of age (Dreist), showed that among thirty-eight lupus spots which had been scattered over the body, only eight were apparently quite healed as the result of last year's treatment, whilst single or numerous typical fresh foci were again visible on the margins of the others. Four of them were on the extremities, and proved later on to have been perfectly cured by means of salicylic acid and creasote plaster-mull and calomel spray. The four others were on the face, and showed white cicatrices, which were somewhat like keloid, and had a " knitted " appearance, without the smallest nodule of sugar-candy colour. She had been treated previously with salicylic acid and creasote plaster-mull and yellow oxide of mercury as a powder. These last-mentioned spots were proved by Koch's treatment to have been lupus fibromata, for, firstly, they melted down gradually into quite smooth, soft, real cicatrices, and then there appeared on the surface in the course of this process a number of plasmoma nodules which had previously been concealed, the appearance of each of them being foreshadowed by a collateral dilatation of the vessels.

A woman, 42 years of age (Maybaun), presented a " lupus tumidus " of the nose, which commenced twenty-two years ago. The nose and the neighbouring parts of the cheeks were thickened in an elephantoid manner, and amalgamated into an evenly reddish mass, in which there could only be recognized very small foci, the size of a mustard seed, and of sugar-candy colour; the case had been previously treated with Brooke's ointment. Under Koch's injections the tumefied middle part of the face became each time bluish-red, without any considerable swelling. I could not exceed the dose of 0·001 gr., on account of severe general phenomena (general cyanosis with severe hæmatogenic icterus, violent pains in the stomach and lumbar region after each injection). Very soon, however, a surprising absorption of the hard connective tissue set in. The old outlines of the nose again became prominent, whilst here and there very small plasmoma nodules appeared on the surface.

These cases, to which I could add a series of others, taught me, after the very first injections, that an absorption of lupus tissue may take place without any inflammatory hyperæmia whatever, and indeed of lupus plasmoma as well as of lupus fibroma. As then the provocation of an inflammatory hyperæmia is certainly not necessary, we may from the very first restrict ourselves to a treatment with moderate doses, which is much more pleasant for the patient.

On that account I returned to the employment of small doses (0·003–0·006 gr.) in all these twelve old-standing cases of lupus, as soon as the absorption of the sclerotic parts had been brought about, without losing the useful absorbent effect of the injections. The five recent cases of lupus I treated only with moderate doses, and I am just as much satisfied with the result in regard to the two mentioned results as previously when using the ordinary large doses.

(*To be continued.*)

CLINICAL NOTES.

ON THE CONTAGIOUSNESS OF COMMON WARTS.

BY J. F. PAYNE, M.D.,

Physician to St. Thomas's Hospital, etc.

THE widely-spread popular belief that common warts are transmissible from one person to another, as well as from one part of the skin to another part, is generally treated by writers on dermatology either with silence or with contempt. Lately, however, the discovery of bacteria epiphytic on the human skin has given support to the notion that these lesions may be due to a specific contagium. For myself, I have long been of the opinion that the popular belief is correct, though opportunities do not often occur for establishing the fact of contagion on definite evidence.

Such an opportunity was, however, afforded by my own personal experience in a particular case, of which a short account will be given.

Charles B., aged 11, a healthy boy, was under my care as an outpatient at St. Thomas's Hospital in 1886, with a very copious eruption of warts. The right hand was nearly covered with them, chiefly the dorsal, but also the palmar surface. On the left hand they were rather less numerous. There was also a very large number on the face. The origin of the eruption was traced to a very large and horny wart on the palm of the right hand, which had existed more than two years. From this point the warts had spread over the right hand, then to the left, and had lately been extending very rapidly over the face. The total number must have been between one and two hundred. The boy was neat and cleanly for a child of his class, and his mother, a sensible, intelligent woman, gave a very clear history of the whole eruption. As the affection was very severe and disfiguring, I took a good deal of pains in treating it locally; and after trying various means, of which salicylic-acid-collodion and acetic acid were the most efficient, succeeded in completely removing the trouble.

When the warts were rendered soft and crumbling by the methods adopted, I found the process was accelerated by scraping them away with the back or handle of a scalpel or similar instrument; and on one occasion thoughtlessly used my thumb-nail to assist the operation. The result convinced me once for all of the contagiousness of warts. After a few days I noticed some redness and swelling under the thumb-nail which had been thus used; and in about a week an unmistakeable horny wart appeared on the spot. Afterwards a second, and then a third wart appeared on the back of the same thumb. I abstained from treating these in order to watch their development, but in a few weeks they all spontaneously disappeared. Not having suffered from anything of the kind either then, or as far as I remember in my life, I cannot doubt that these little troubles were due to some contagious matter having lodged under the thumb-nail, where it was not removed by the ordinary processes of ablution.

This little experience confirmed me in a theory which I may thus express:—

Common warts, including under this name the so-called Verruca vulgaris, and Verruca plana (which differ only according to the part of the skin on which they occur), but excluding the senile pigmented warts and the pointed condylomata, of which the origin is not so clear, appear to arise by implantation of some contagious material at one or more points of the skin, usually on exposed parts. This implantation may of course be favoured by want of cleanliness, but warts are certainly not produced, as is sometimes asserted, by this cause alone. There is also some idiosyncrasy which may cause either special predisposition or immunity; for while some persons, especially children, are very liable to warts, others, though living under precisely the same conditions, never suffer from them. From the original wart or warts thus produced others may be set up by local inoculation just in the immediate neighbourhood, afterwards perhaps in more distant parts, such, for instance, as the other hand, or the face; but often the affection has a strict local limitation; the process of extension is arrested, and the warts die off and disappear spontaneously without any apparent cause.

At any period, I believe that communication to another person is possible by ordinary contact, or possibly by handling the same objects; though this does not occur constantly, nor perhaps very often, since a somewhat close contact appears, as in the case of scabies, to be necessary. The familiar fact that warts occur in many children or young persons in the same family, school, or place of business, seems difficult of explanation on any other hypothesis. The same hypothesis, taken in connection with the fact of their frequent spontaneous disappearance, explains also some of the curious popular superstitions on this subject: such as that warts can be conjured away by charms, or got rid of by sale to a willing purchaser. The belief in charms is of course supported by the occasional spontaneous vanishing of warts after some ceremonies have been gone through, and the supposed transference by sale from one person to another will rest upon the not impossible coincidence that they may be fading away from the seller at the time that the contagion has already been transferred to the buyer. Such coincidences impress the imagination, while the far more numerous negative instances or failures are forgotten.

There is even less difficulty in accepting the belief that fresh warts are produced by local inoculation of some pathogenic material derived from an existing one. If the spread of these structures in any patient be carefully watched, it will be seen to be governed by some such law. The causal or genetic connection is sometimes masked by the different appearance of warts on different regions. For instance, from the back of the hands they may be, in children, transferred to the face; though, being in the latter situation, smaller, less conspicuous, and less horny than on the hands, they are often thought to be of a different kind. Of course it is quite possible also for the first inoculation to occur on the face.

We do not as yet know of what the infective material consists. Micrococci may doubtless often be found, but they are so commonly present in inflamed or hypertrophic patches of skin, that they can hardly, without further proof, be admitted as a cause. The popular belief is that inoculation takes place through the blood, if the warts are made to bleed, and there seems to be some ground for supposing that blood may be a specially good carrier of infection.

With regard to the local treatment of warts, there is little new to be said. Collodion of salicylic acid, which is now become quite a popular remedy, seems generally the best application, but it does not always succeed. Various caustics and acids are also used. The commonest mistake is that to attempt to destroy the wart once for all by some powerful caustic. This process is often painful, and if it succeeds is apt to leave a scar. A better method is to apply some light caustic, such as acetic acid, either concentrated or diluted to half strength, several times a day; and in this lies, I believe, the main secret of successful treatment. Of internal treatment by sulphate or carbonate of magnesia, recommended by several authors, and lately by Radcliffe Crocker, I have no personal experience..

CASE OF HYPERTROPHY OF PENIS AND SCROTUM.[*]

BY WALTER G. SMITH, M.D.,

Physician to Sir Patrick Dunn's Hospital, Dublin.

A MAN, aged sixty-eight years, who had seen better days, but who had fallen into poverty through intemperance, was admitted under my care into Sir Patrick Dunn's Hospital in February, 1891. He was fairly well nourished, but was extremely anæmic. Red corpuscles, about 3,500,000 in cubic millimetres. Percentage of hæmoglobin under 30. Microscopical examination of his blood revealed nothing noteworthy. The temperature was subnormal throughout. He complained of shortness of breath, and of general debility; still, he was in good spirits, and did not seem to make much of his illness, except that for the last two months he was hardly able to walk. There was slight œdema of the face, body and legs. The skin generally had a dry and glazed appearance, and was of leathery consistence.

The urine was almost colourless, generally devoid of sediment, was free from sugar, and contained a trace of albumen.

The penis and scrotum presented a remarkable appearance.

The patient stated that about two and a-half years ago he noticed a swelling on his scrotum, preceded for some time by a "partial stoppage of water." From that date the penis and scrotum gradually increased in size. The scrotum was very heavy and measured 22cm. in length by 23cm. in breadth. The skin was pale and thrown

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[*] Notes by Mr. Shaw, Clinical Clerk.

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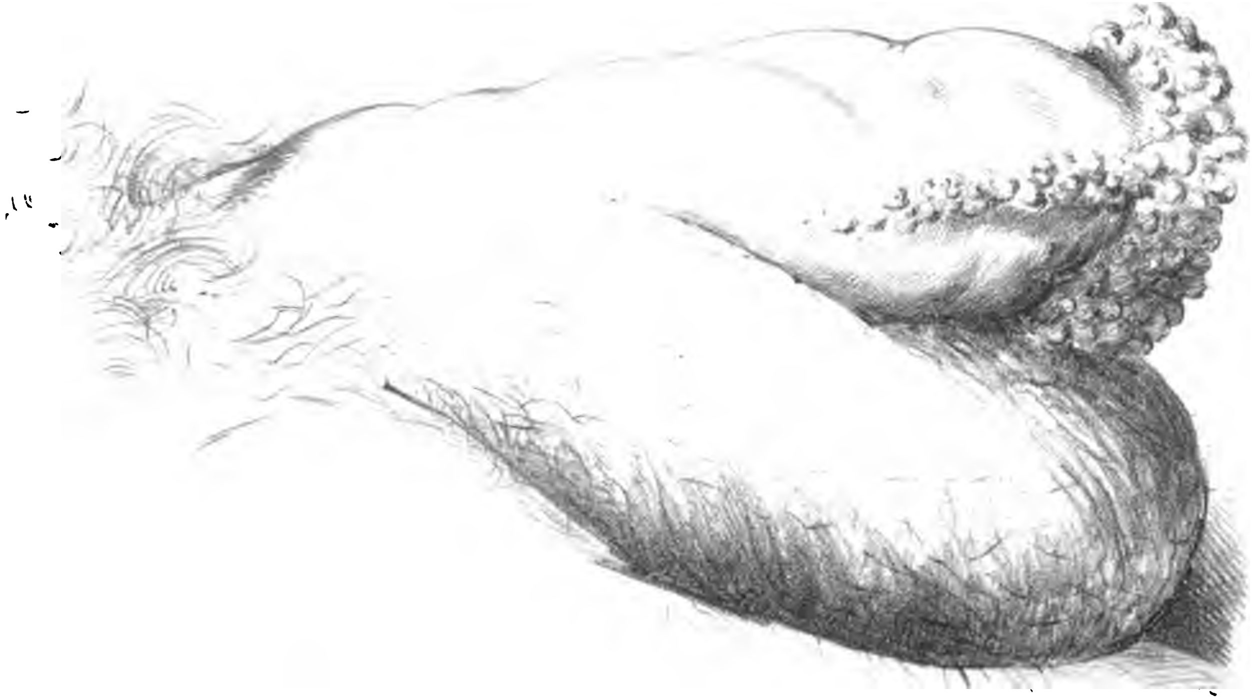

To illustrate Dr Walter G. Smith's case of Hypertrophy of Penis and Scrotum.

Reduced one-third from original size.

into thick wrinkles and nodules, but nowhere fissured or inflamed. In addition to a certain amount of œdema, which pitted upon pressure, the skin was densely thickened in parts, and felt like soft leather.

On the posterior surface of the scrotum were several irregular rounded prominences. The anus was surrounded by a cluster of fibrous bosses of skin of the same appearance as the scrotal projections. The largest was irregularly square in shape and projected about an inch.

The penis exhibited a curious and misshapen form. The body of the organ was enlarged and thickened, and along the dorsum existed a broad band of fibrous induration. From the lower surface of the prepuce down the middle line of the penis ran a fibrous, nodulated ridge for nearly 3 inches, tapering to a point.

Length of penis	14 cm.
Circumference around its centre	16 cm.
„ „ glans penis . . .	18 cm.

The chief deformity was found in the prepuce, which was twisted and bent upon itself. Its consistence was dense, almost cartilaginous. The whole surface of the foreskin was coarsely nodular, somewhat resembling a cauliflower.

It seemed impossible to discover the urethral orifice, and when the patient was asked to micturate, the urine issued in a ribbon-like stream from an almost imperceptible cleft at the side of the distorted prepuce. At times he found considerable difficulty in ejecting the urine. The patient died a fortnight after his admission.

Post-mortem examination, day after death.—Abdomen contained some turbid ascitic fluid. Diaphragm pale; some patchy black pigmentation on its upper and right side. No sign of recent peritonitis. Gall-bladder adherent to transverse colon. Retro-peritoneal glands enlarged, red and juicy. Mesenteric glands deeply pigmented. Both pleural cavities contained a considerable quantity of turbid yellow fluid. A few adhesions at apex of left lung. Pericardium normal. Heart large and flabby, several white patches on right ventricle, right auricle, and left ventricle. Mitral valve thickened, its endocardium milk-white. A few atheromatous patches at base of aortic valves. Spleen large and friable. Left kidney very small, weighed about 2 oz., and was almost completely degenerated. Its capsule was thickened, and with difficulty torn off. Surface of kidney finely granular, and studded with small clear cysts. Cortex very thin, and with numerous cysts. Pelvis of kidney greatly dilated. No dilatation of ureter.

Right kidney enlarged, 6 inches in length. A few minute cysts upon the surface; appeared healthy upon section. Liver pale and soft, otherwise normal. Nothing remarkable in stomach or intestines, except a few sub-mucous hæmorrhages in stomach, and patches of black pigment in the wall of the large intestine, the contents of which were black.

Lungs œdematous; some old cheesy masses in the puckered and retracted left apex. Tip of right lung slightly shrunken.

Remarks.—The condition of the genital organs described above may, I think, be regarded as an example of the growth of "elephantoid" affections.

Sections of the penile growth * showed under the microscope thickening of the skin, due to a free development of interlacing, wavy, connective tissue bundles, infiltrated with small round cells. No marked dilatation of the lymph spaces was observed.

The term *elephantiasis*, as used by writers, represents a clinical group rather than a single and distinct affection, and therefore is scarcely susceptible of a neat definition, clinical or pathological.

The word is applied for example: (*a*) To non-inflammatory simple primary overgrowths of connective tissue, *i.e.*, diffuse fibromata; (*b*) to cases of connective tissue overgrowth, secondary to venous or lymphatic obstruction, singly or combined, *i.e.*, to an overflow of lymph. The cause of the obstruction has, in some cases, been traced to the blocking of lymph-channels by the parasite *filaria sanguinis* (*e.g.* lymph scrotum); (*c*) to cases of hypertrophy of the skin and subcutaneous tissue, consequent upon chronic venous congestion, or upon erysipelatoid or lymphangoitic inflammation of the skin.

The case I have related probably belongs to class (*b*).

There was neither history nor evidence of inflammation either of the vascular or lymphatic pathways. It was, on the contrary, clear that the enlargement had a quiet and non-inflammatory beginning.

The chronic leathery œdema of the skin suggests a certain amount of lymph obstruction, and it is quite possible that the originating impulse to the development of fibrous hypertrophy is, in this as in other cases, an excess of nutritive lymph due to partial lymphatic obstruction. Thrombosis of the veins of the penis and scrotum would, if present, act as a co-operating cause.

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* Kindly made for me by Dr. Alfred Parsons.

Several cases of lymphatic varices of the male genitals without accompanying elephantiasis are on record, and Birret describes instances of lymph-varix of the penis so considerable as to impede coitus.

That the scrotum may be the only part affected by elephantiasis, and may then reach enormous dimensions, enveloping the penis so as to conceal that organ in its recesses, is familiar to every one.*

But, conversely, the general rule, to which my case is no exception, is that when the penis and prepuce are affected, so also is the scrotum. Duchassaing, however, describes a case of isolated tumour of the prepuce as big as the fist.

The appearances depicted in Plate IV. of Esmarch and Kulenkampff's monograph (*Die elephantiastischen Formen*, 1885), closely resemble those in my case.

Dr. Shakespeare, of Philadelphia, reports a curious case of hypertrophy of the penis in a leukæmic patient who succumbed to the anæmia. For fourteen days the penis was in a state of continuous erection, with slight hyperæthesia. A fortnight later a considerable increase in the size of the organ was observed, and two-and-a-half months from the commencement the circumference of the penis had increased by 30 cm. (Esmarch and Kulenkampff, *loc. cit.*, p. 68).

Elephantiasis of the genitals is more frequently non-inflammatory than elephantiasis of the legs, and the affection is much more rare in the female, than in the male, sex. The consistence, whether firm or soft, of the part attacked depends upon whether lymph-stagnation or connective tissue growth predominates. In the latter event we have a dense and warty-looking condition of the skin, such as obtained in Mr. G——'s case, and which has been noted by several writers.

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* It is said that there is in the Museum of King's College, in London, an old picture, which represents a man who, as he sat behind his elephantoid scrotum, utilized its flattened upper surface as a table for his meals.

CURRENT LITERATURE.

ON PLASMA CELLS, ESPECIALLY IN LUPUS. Dr. UNNA (Hamburg). (*Monatshefte für Prakt. Dermatologie.* No. 7, Bd. xii.)

A new Method of staining the Protoplasm of Cells.—The present may with justice be termed the Nuclein period in histology, for, with the exception of the representation of bacteria and certain degeneration products, the main results of all the staining processes of the last twenty years have been obtained in the investigation of the easily coloured substance of the nucleus.

Although this serves well to picture the *productive* life of the tissues, it leaves many gaps in our knowledge of their *vegetative* life, which is concentrated not only in the protoplasmic substance of the cell but equally in the intercellular substances, in which metabolic processes are continually taking place. Only the final secretory and degenerative products, such as fat, elastin, mucin, amyloid, hyalin, and the granulations discovered by Ehrlich and Altmann (that is to say deposits in the protoplasm and the intercellular substance), have so far been studied, and these possess as yet no classical methods of colouring, which allow them to be exactly isolated from their surroundings and investigated as to their extent and their qualitative changes. Hence arise the discussions which are continually taking place on the actual life-processes of the tissues, for the investigations upon them are continually coming on to "dead points" beyond which they cannot progress.

One of these standing questions, and one of the greatest importance, is that as to where the connective cell begins and where it ends. The answer to this includes not only a decision as to the connection existing between the cells themselves, their relation to the intercellular substance, and the commencement of the lymph spaces, but also as to the contents of the cells on the one side and the lymph spaces on the other, as to the cellular construction of all sorts of possible structures, such as that of many giant cells, which are now reckoned, probably erroneously, among the cell forms. In this problem lie the actual boundaries of the cellular pathology.

A second and very modern problem is that with regard to animal parasites lying within the animal tissues, and it is because our methods of investigating the protoplasmic and intercellular substances are still so undeveloped that our knowledge of these parasites (or degenerated particles of protoplasm, whichever they may be) are relatively so backward in comparison with those of the parasites of vegetable nature.

Another problem of importance, which still remained to be solved, was the tinctorial differentiation of the protoplasm from the vegetable "mucus" which these organisms produce, and which, remaining unaffected by the nuclein stains which colour the parasites, has hitherto almost escaped notice.

After various trials of different methods of preparation (hardening, mordanting) and of dyeing with non-nuclein staining colours, Unna found that this differentiation might be attained by the use of decolourizing agents of less active properties than those now ordinarily used (alcohol, acid alcohol, aniline oil, &c.). In 1875 he first used creasote as a decolourizer of iodine violet staining of the horny layer, but as the results were very inconstant he experimented a few years since with the two constituents of beech creasote, viz., Guaiacol $C_6H_4(OH)OCH_3$ and Creosol $C_6H_3(OH)OCH_3CH_3$. The former was found to be quite useless, being quite as quick a solvent as alcohol or aniline oil, but the latter acts perfectly, only partially and slowly removing the colourings which the protoplasm had taken up.

The method of employing it is as follows :—

1. Colour the sections intensely, either quickly (in strong solutions in the cold, with warmth or with the help of mordants) or slowly (in weaker solutions);
2. Dehydrate the over-coloured sections by pressing them on the glass slip with blotting-paper, or by a momentary immersion in alcohol until the epithelium appears as a dark band against the cutis;
3. Transfer to creosol and watch carefully until, in a time varying from a few minutes to several hours, the required decolourization and differentiation takes place;
4. Fix with xylol and mount.

By this process the protoplasm is finely shaded, and the nuclei are not so intensely coloured as by the ordinary methods of staining and decolourization. The "mast cells" are clearly shown; if a reddish methylene blue solution (an old alkaline solution in which methylene violet has formed) be used, the cell colours cherry-red and the nucleus blue. In preparations hardened in alcohol, the mitoses are demonstrated better than by any other method; and the nucleoli, not being decolourized to the same extent as the nucleus itself, stand boldly out.

Investigation of Lupus by the Creosol decolourization Method.—Through the researches of Friedländer and Baumgarten it is known that in lupus tissue, in place of white, fibrillar connective tissue are found dry, non-vascular, purely cellular and therefore yellowish translucent foci, which show externally as the familiar typical apple-jelly or sugar-candy coloured spots. It is also known that in the midst of these foci the so-called epithelioid cells and giant cells are formed, whilst new formation of vessels and of fibrous tissue almost always takes place, and that, in contradistinction to other tubercles, diffuse necrosis never occurs.

The part played by *wandering cells* had for some time been an uncertain one, but Baumgarten has shown that the old view that they actually composed the mass of the tubercle is quite incorrect. Further light is, however, thrown on their function by the creosol decolourization process.

Lupus Cells.—If a small, very recent lupus nodule is examined, one or more foci are seen lying immediately under the epithelium, composed of round cells and distinguished by a complete absence of collagenous and elastic tissue. The cells are unusually large and might be taken for granular "mast cells" compressed to a cubic or rhomboid shape (as in urticaria pigmentosa). The long stretched-out cell forms, however, which are always seen among true "mast cells," are entirely absent, the granules are not so regular, and the protoplasm, as well as the nucleus, is coloured blue by the methylene blue solution, instead of being metachromatically stained bluish-red or violet.

As an additional proof of their non-identity, typical "mast cells" with much larger granules and with well-marked red and blue staining, may be seen in the midst of the focus, and no transitional forms between the two can be found. The granulation of the lupus cell is albuminous, that of the "mast cell" mucilaginous (Hoyer).

The cells with which they are really identical are those which Waldeyer designated *Plasma cells*. These cells were at first confused with Ehrlich's mast cells, but Waldeyer recognized that they were of a separate class, occurring in many places in the connective tissue, having a voluminous, granular protoplasmic body, but without the leaf-like, membranous appendages of Ranvier's connective tissue cells. On account of their thickened protoplasm he gave them the name which they now bear.

It is to these bodies that the name of "*Epithelioid*" cells has been applied in lupus as in tubercle generally, but both their origin from the connective tissue and the absence of the characteristic prickles show clearly that the name is an incorrect one, as does also their pure blue colouration as against the violet shade which true epithelium takes on.

It is the development of these plasma cells from the endothelium of the capillaries and from all the connective tissue cells which are exposed to the influence of the tuberculous virus, which forms the first stage in the growth of a tubercle in the skin. No other phenomena than the disappearance of the collagenous and elastic tissues accompany it, neither new vessels nor any trace of inflammation are visible, and in no case is any transition found of the often assumed transition from wandering cells to plasma ("epithelioid") cells. The wandering cells are distinguished by their clear protoplasm, small, strongly tinted, often hornglass-shaped or lobular nucleus.

The further fate of these plasma cells takes one of two directions, they either degenerate directly in the centre of the lupus nodule, or they set up first an intense process of proliferation. The process of degeneration is invariably the final result, but the proliferation, the transition from hypertrophy of the connective tissue cells to hyperplasia, does not always occur. The newly proliferated cells take on a darker colour, the protoplasm is greatly reduced in quantity, whilst the nucleus, in spite of constant redivisions, keeps almost its original size. Those plasma cells which lay singly between the collagenous bundles break up in the same way into cubical or polygonal portions which colour deeply. The masses thus formed have hitherto been always wrongly considered as groups of wandering cells. The mistake is all the more easily explicable as wandering cells often actually do surround the lupus focus, and are scarcely distinguishable from it by the action of the ordinary colouring methods.

The degeneration process attacks the plasma cells both large and small, sometimes the protoplasm alone, rarely the nucleus alone. Often the nuclei proliferate whilst the protoplasm is in process of degeneration. It cannot therefore be a "coagulation necrosis" (Weigert). It is, indeed, difficult to say to which class of the degenerations it belongs. It is neither amyloid, hyaline, nor colloid; *the protoplasm is simply swollen and more homogeneous than in the normal.* It appears in fact to be a degeneration *sui generis*, to which, in contradistinction to Virchow's "cloudy swelling," the term "*homogeneous swelling*" might be applied. The fine granules of the plasma cells must be converted into a homogeneous substance, like the keratohyalin granules in the horning process, or the cell must take up some substance derived from the bacillary poison which produces this effect.

In the large cells, the process begins only in one spot, and if the nuclei go on proliferating without any further cell division, "*small giant cells*" are produced. The clod-like masses of small degenerated plasma cells compress the other cells which surround them, and thus (as in all degenerations) preserve them from being poisoned and disintegrated. As these surrounding cells take up colour more readily on account of their compression, they appear as circles and crescents, and produce a peculiar mosaic effect throughout the whole of the cell mass of the tubercle during this second stage of degeneration. This is better seen in small single lupus foci, which are tightly packed in connective tissue, than in the diffuse infiltrating form of the disease which is met with in very vascular regions, where the tension is slight (*e.g.*, the face). The smaller foci are often converted entirely into giant cells, but the strings of cells which occur in the latter sites may, in spite of their degenerated condition, pass directly, without previous fatty conversion or ulceration, into the fibrous tissue of the lupus scar. Unna agrees with Baumgarten that *caseation and necrosis never take place in lupus*. Such processes would require for their accomplishment far more tubercle bacilli than are ever present in lupus tissue.

The Giant cells are produced through the compression of healthy and proliferating cells by cells which have already degenerated. The latter form a compressed mass, often containing degenerated, elastic and collagenous fibres and bacilli, and are more or less surrounded like a balloon or cap by the proliferating cells in the immediate neighbourhood. The only condition to which the name giant cell is really appropriate is that the production of which has just been described above. But the larger masses to which the name is also applied are really agglomerations, often of very heterogeneous tissues, in the apparently degenerated centres of which may be seen normal elastic fibres and cells which under the action of the creosol decolourization show their protoplasm and nucleus still distinctly coloured. The giant cell can evidently therefore be no longer looked upon as a single-celled structure.

Unna has not in this article considered the pathology of the complications of lupus, such as epithelial proliferation, changes in the coiled glands, elephantiastic growth of connective tissue, invasion by pus cocci and ulcerous destruction, but confined himself to the most natural and persistent sequel of lupus, the development of connective tissue and *formation of the lupus scar*. The beautifully smooth white scars which form in the centre of some lupus patches, and sometimes even entirely replace them, are not, as is usually supposed, ordinary scars such as are found on the site of a healed ulcer. They differ in having no elastic tissue, the collagenous bundles are not arranged in cross meshes but in parallel bundles, and these bundles are not sharply outlined, as in normal skin, but are covered with large spindle cells and cell plates which are relatively rich in protoplasm. When examined by the creosol method it is seen that the plasma cell masses pass directly, by recognizable stages, into the scar tissue, but it is still uncertain whether the plasma cells are themselves converted directly into fibrous tissue or whether they are simply absorbed as they lie between its strands. The lupus scar is not, therefore, a simple indifferent substitute for lupus tissue, it is itself a lupus tissue of remarkable persistency. Apart from the complications mentioned above, it is evident that at the end, as in the beginning of a normal case, lupus consists of a very durable tissue, in the one case purely cellular, in the other fibro-cellular.

Relation of Lupus to the other forms of Tuberculosis.—It is almost impossible, owing to the very various forms which tuberculosis assumes in different organs and different tissues to give a simple schema of the tissue changes which it produces. A few points, nevertheless, apply to all its forms alike: firstly, that the number of the bacilli present in a certain space determines the nature of the phenomena which we are to expect there; then that the possibility or impossibility of an abundant blood supply exercises a very considerable influence on the course of the disease process, the acutest forms occurring where the bacilli are largest in number and the vascularization the richest, the most chronic forms where the contrary conditions prevail. Of the latter conditions the skin furnishes the best example, and on this account does lupus take on the progressive character of a florid tumour, in distinction to the other forms of tuberculosis. It represents a one-sided but very instructive picture of tuberculosis generally, which may be looked upon as one end of the scale of the various actions of the tuberculous poison. The truth of this statement is proved by those cases in which the skin is untrue to its real nature, *e.g.*, in cases of so-called surgical tuberculosis where the infection is derived from some underlying organ. In such cases a penetrating ulcer is formed, and, owing to the invasion of material rich in bacilli, actual caseation takes place. Even here lupus tissue is found, but only on the verge of the healthy skin, at a respectful distance from the centre of excessive poisoning, and spontaneous healing consequently never takes place. Similarly, in those internal organs which are less favourably placed, there may be found, in the neighbourhood of the necrotic foci, and especially of the so-called tubercles, "husks" of lupus tissue, *i.e.*, of plasma cells and remnants of the mother tissue.

Influence of Tuberculin on Lupus Tissue.—It is on this mother tissue, which in lupus consists mainly of plasma cells, that the action of tuberculin is exerted. With the resorption of the plasma cell tumour (*plasmoma*), and of the lupus scar (*lupus fibroma*), the action of the tuberculin unfortunately is at an end. Even the degenerated plasma cells, which are still far from necrotic, are but slightly affected by it.

The necessity for a name by which to indicate the basis or mother tissue has been of late more than ever apparent. The word Granuloma is so mixed up with ideas of emigration as to be quite unsuitable, and all granulomata (*e.g.*, lepra) do not contain plasma cells. Unna proposes, therefore, to speak of the *Plasmoma* of lupus, as of the plasmoma of rhinoscleroma and other affections in which plasma cells occur. Expressed in these terms, it might be said that tuberculin has chemical relations to the tuberculous plasmoma and the tuberculous fibroma, destroying them and promoting their absorption.

In order to determine more accurately the action of this body on the skin, pieces were excised and treated with it whilst kept at the body temperature. As excised pieces of skin will live for ten hours, an idea of the action on living cells could in this way be obtained. Portions of normal skin, carcinoma, and lupus tissue were subjected to the action of pure tuberculin, of ten per cent. and one per cent. solutions respectively, control experiments being at the same time carried on with similar pieces in forty per cent. solutions of glycerin in half per cent. carbolic water. Both sets of pieces were examined microscopically and compared with other excised portions simply hardened in alcohol. The concentrated tuberculin was found to have caused homogenization in the highest degree of the protoplasm and intercellular substance, to have brought about a precipitation of the chromatin of the nucleus in the form of a dense sponge-like network, and produced a shrivelling up or sort of coagulation of the protoplasmic substances with deposition of deeply tinged particles. The action of the two dilute solutions was practically the same and quite opposite to that of the concentrated fluid. They caused homogenization of all the tissues, so that epithelium, connective tissue, and plasma cells lost all individuality. After treatment by methylene blue and creosol, epithelium and corium appeared as one evenly coloured blue mass, in which a few slight indications of nuclei were just visible. Everything was but faintly coloured and there was no indication of shrivelling.

Comparing these results with the changes seen in tuberculosis of the skin, it is evident that in lupus we have the simple homogenizing effects of the dilute tuberculin before us. Coagulation or necrosis of the protoplasm never occurs, and there is never any destruction of nuclei. But in the immediate neighbourhood of the tubercle bacillus, *e.g.*, where the "giant cells" are situated, a more powerful action of the poison comes into play, and hence are found, in the living tissue, not only deposits of chromatin, but also actual division of nuclei, and as the homogenized protoplasm is unable to break up with them, the formation of multinuclear cells.

In surgical tuberculosis, and most of the tuberculoses of the inner organs, we find in the caseated parts the same coagulation which is observed to take place in the protoplasm and intercellular substance under the action of pure tuberculin. The correspondence of the two processes may be clearly seen in preparations made by the creosol decolourization method.

A study made upon dying fragments of skin was manifestly unable to furnish any analogue to the primary action of the poison on uninjured tissues, the original formation of plasma cells. H. G. B.

ALOPECIA AREATA, ITS PATHOLOGY AND TREATMENT.

Dr. Radcliffe Crocker, in his address, introductory to the discussion on the above subject, which was delivered at the meeting of the British Medical Association on July 30th, 1890, and which appeared in the *Lancet* of February 28th, 1891, gives an interesting account of his views of the nature of the malady, gathered mainly from his own experience.

He has analyzed 207 cases of this affection which occurred among nearly 10,000 cases of skin disease in Hospital practice, as well as fifty cases selected from his private patients. He concludes from this analysis that the disease occurs most commonly in persons under the age of twenty, comparatively frequently among those between twenty and forty, and rarely in those over fifty, and he finds that it rather more frequently attacks males than females. The cases are divided by him into four classes :—

1. Cases in which the disease is universal, and in which the hair does not necessarily come out in patches, but there is a general falling off, often very rapid, and accompanied in severe cases by changes in, or even falling off, of some or all of the nails.

Cases of this class are rare.

2. Baldness occurring in one or more patches at the site of an injury to, or in the course of, a recognizable nerve.

This variety is also comparatively rare.

3. *Alopecia circumscripta seu orbicularis*, described by Neumann, characterized by atrophically depressed patches, which are small, and often show a marked decrease in sensibility.

These cases are very rare. (Two instances are briefly described by Sangster and Pringle in the *British Journal of Dermatology*, Vol. II., No. 2, 1890, p. 51.)

4. Numerically the largest class, to which he considers the old term "*tinea decalvans*" might fairly be applied (due as the writer believes to a vegetable parasite). This class he illustrates by four different figures, showing various forms of patches which are characteristic of the class. They are from a half to two inches in diameter and of round shape primarily, but they may be larger and irregular in outline from coalescence of neighbouring patches. They commence most frequently at the back of the head, but may be scattered all about the scalp, or as a band passing round the head. "The bare areas are smooth and whiter, and the tissue is lax and thinner than normal skin. In all recent and active cases there are short, "mark of exclamation" (!) or "club-shaped" hairs, which can be pulled out easily, and are in Dr. Crocker's opinion quite characteristic of this form of the disease, as he believes they are absent in the other three classes. They indicate recent extension.

He has been unable to trace any connection between the disease and disturbance of the general health, except in very few instances.

Among his fifty private cases he admits that seven afford some fair grounds for being considered neurotic; in other words, the neurotic theory was inapplicable to nine-tenths of them.

With regard to contagion, he mentions some good cases supporting the view that the disease is under some circumstances directly conveyed from one person to another, and he is of opinion that some cases have been contracted through contact with ringworm.

Believing, as the author does, in the close connection between ringworm and his fourth-class of alopecia areata, he naturally calls careful attention to his method of examining suspected hairs, which is briefly as follows:—Pull out a good many of the loose hairs at the border of a patch, examine them with a lens, and select those which have most root-sheath attached. Cut off superfluous shafts of these hairs, soak the root ends in liquor potassæ or a saturated solution of caustic potash in glycerine, and examine the portions of epidermis attached to the shaft, handling them carefully so as not to detach the affected part. "The fungus is always in small foci, and perhaps only in one of several selected hairs; sometimes it may be seen at the very extremity of the root, as if it had worked round and separated the hair from its papilla."

With regard to his fourth-class, he concludes by saying—1. That this form is to a limited extent contagious, and that from time to time limited outbreaks have occurred in small communities; 2. That not only children, but adults who have been in contact with tinea tonsurans sometimes develop bald patches indistinguishable from alopecia areata; 3. That in tinea tonsurans commencing in the typical way, the characteristic crooked stumps may both spontaneously and under treatment disappear, and the patches develop into an alopecia condition, with (!) hairs; 4. That in those countries where tinea tonsurans is most common alopecia areata is also most frequent; 5. Hence we must conclude that a large proportion of cases in adults which are termed alopecia areata are cases of bald tinea tonsurans, which is acknowledged to exist amongst children, and that the old authors, from Bateman onwards, were justified in calling it porrigo, or tinea decalvans; 6. Finally, I believe that a parasite indistinguishable from tricophyton tonsurans fungus may be demonstrated in recent cases, and the treatment most efficacious is inunction of powerful and stimulating parasiticides.

Alfred Eddowes.

THERAPEUTIC NOTES.

CHLORIDE OF GOLD AND CYANIDE OF POTASSIUM IN LUPUS.

Dr. I. Rüsin. (*Meditsinskoië Obozrenië*, No. 5, 1891, p. 509.)

The writer relates a case of severe facial lupus, of thirteen years' standing, in a peasant woman, aged 40, in which he obtained strikingly successful results from local subcutaneous injections of a 1 or 2 per cent. aqueous solution of chloride of gold and of a similar solution of cyanide of potassium, the dose of the former varying from $\frac{1}{1000}$ to $\frac{1}{100}$ grain, and of the cyanide from $\frac{1}{1000}$ to $\frac{1}{200}$ grain. The injections were repeated daily or every other day, their total number, in eleven days, amounting to six. On examination before the treatment, the whole face, nose and forehead were found to be affected, the cheeks, forehead, chin, lips and hard palate being studded with ulcers, the discharge from which contained tubercle-bacilli. On the second day of the treatment, the patient's subjective state improved; on the third, the swelling of the face subsided, the old scars began to shed cuticle, and an ulcer present on the lip somewhat decreased; on the sixth, other ulcers continued to heal; on the seventh, all pain disappeared; on the eleventh, some ulcers proved to have completely healed, the remaining having become clean and soundly granulating. The woman is still under observation.

Valerius Idelson (Berne).

ON THE THERAPEUTIC USES OF MEDICATED SUPERFATTY SOAPS.

Dr. Carblom. (*Proceedings of the Riga German Medical Society for* 1890, p. 669.)

Dr. Carblom, of Riga, reports a series of therapeutical experiments with the different sorts of Eichhoff-Unna's medicated "superfatty" soaps (cf. Drs. W. Allan Jamieson's and B. Dott's paper in the *British Journal of Dermatology*, June 1890, p. 172; also Dr. B. H. Paul's, *ibid.*, March, p. 81), applying them in one of the following four ways:—1. A warm lather was rubbed into the skin, and after a short time washed away; 2. The lather was rubbed into the skin in a similar manner, but removed by means of wiping with a dry towel or linen; 3. The parts were covered with a thick layer of the lather and allowed to dry; 4. The lather was similarly thickly painted over the area, and then covered with some waterproof, and thus Dr. Carblom has come to the conclusion that a superfatty:—

1. *Resorcin-and-salicylic-acid soap* proves especially useful in parasitic cutaneous affections, associated with hyperplasia of the cuticle—such as parasitic or seborrhoic eczemas, psoriasis, acne, ichthyosis.

2. A *salicylic-acid-resorcin-and-sulphur soap* is indicated in similar affections, but more especially in such cases as are characterized by a more chronic course of the cutaneous inflammation, deeper hypertrophy, and desquamation.

3. A *salicylic-acid-resorcin-sulphur-and-tar soap* is serviceable in the same category of affections, but particularly in common psoriasis.

4. All the three afore-mentioned soaps can be also strongly recommended in favus and tinea tonsurans.

5. A *quinine soap* gives good results in pityriasis versicolor, and in the intertrigo eczemas of children. An after application of some bland powder is advisable.

6. A 3 per cent. *hydroxylamin soap* proves beneficial in lupus, tinea tonsurans, inveterate cases of psoriasis and eczema, and, occasionally, even in lepra and lues. The application usually causes some burning pain.

7. A 5 per cent. *iodoform soap* affords a good means for cleansing and stimulating indolent ulcers.

8. A *creolin soap* can be employed with advantage in scabies, impetigo contagiosa, intertrigo, as well as in bromidrosis. The lather should be firmly rubbed into the affected parts several times a day.

9. An *ergotin soap* is of service in simple rosacea, frost-bites, and for treating congested cicatricial areas of any kind.

10. An *iodine soap* can be successfully used (*a.*) as a resorbent in cases of goître, or superficial granular enlargements; and (*b.*) as a parasiticide in cases of tinea tonsurans, pityriasis versicolor, psoriasis, &c. It should be kept in mind, however, that the preparation possesses a powerful irritant action, and hence its application should be from time to time interrupted, and a zinc starch powder employed instead.

11. A *salicylic-and-creasote soap* produces excellent results in lupus. It may be used either as a wash to the part, or in the form of lather (protected with a waterproof dressing), or the soap application may be alternated with some surgical procedure.

In comparison with plasters, salves, pastes, &c., the use of the soaps is said to be both more convenient and a good deal cheaper. On the whole, the introduction of the preparations can be safely termed an important advance in dermato-therapeutics.

VALERIUS IDELSON (Berne).

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NOTES ON LICHEN PLANUS IN INFANTS.

BY T. COLCOTT FOX, M.B.,

Physician to the Skin Department at Westminster Hospital, late Physician to the Victoria Hospital for Children.

THE papular eruption which I propose to discuss comes under observation only occasionally, and in my experience more particularly in the out-patient department of children's hospitals. It is distinctly not of frequent occurrence. I believe I am correct in saying that Dr. Radcliffe Crocker had such cases in his mind, as well no doubt as other examples of indisputable lichen planus, when he penned the following remarks in his chapter on lichen ruber (Diseases of the Skin, 1888, p. 215). "When occurring in childhood—a rare event—the disease takes the same characters and follows the same course as in adults, but there is an infantile form which is different in development and course. The eruption comes out acutely in groups, each papule of which is sometimes acuminate at first, but the top seems to die down and a scale comes off, leaving a smooth shining angular papule, of a brighter red than usual, though it may get a purplish tint subsequently. It may be on the limbs, or trunk, or both, is attended with considerable itching, and gets well in a few weeks with the help of a soothing application, such as calamine lotion and a ferruginous tonic.

"Rickets was present in some of my cases, and conjunctivitis in one, in another it was associated with ordinary miliaria rubra, and others have been apparently healthy.

"Liveing is the only author I know of who has noticed the milder character of these cases, but a well-marked case is recorded by Tilbury Fox, and Kaposi mentions having seen one case at eight months which was probably of this kind. Colcott Fox thinks that they are due to congenital syphilis, but I have seen cases which were certainly not syphilitic, and I believe that they are most frequent in infants who sweat profusely, and probably a sudden chill while in a profuse perspiration is the determining factor. This view would account for its appearance in children with rickets, and even congenital syphilis, and would bring this form into closer relationship with the acute cases of adults."

I think it will be profitable to draw increased attention to this infantile affection, though I must confess to many misgivings, owing to the very imperfect manner in which I am able to set about my task. The features of my cases were observed amidst the turmoil and pressure of a very crowded out-patient department, and noted down in a very rough manner, as will be only too apparent. Further, the characters of the cases will be but imperfectly appreciated, I fear, from my rough record, and I have no microscopical studies with which to support my reasonings, nor will there be an accompanying pictorial illustration.

My whole experience is comprised in a study of about a dozen cases, and all these save two have been seen at a children's hospital. I will introduce here the brief notes of several cases, which I hope will prove sufficient to enable the reader to identify the class of case to which I desire to draw attention :—

Mary H., aged about 7 months, was seen on February 7th, 1884. She was a healthy baby at birth, but at three months somewhat suddenly became languid, restless, out of sorts and snuffly. At seven months the child had a sunken bridge of the nose, and looked anæmic and unhealthy.

The whole body was closely covered with a miliary papular eruption of three months' duration, very closely simulating a small-patterned lichen planus. The eruption was quite smooth and shining, pale red or pink in colour, abruptly raised and flattened on the top with an angular outline, not umbilicated, discrete, though tending to form aggregations in some parts. Some papules had a rounded top, and a few were acuminate with a crater-like summit, and were evidently developed round a follicle. The eruption covered the trunk thickly, the face slightly, and the limbs to a moderate extent. The great flexures were free. At this time I had a strong prejudice in favour of diagnosing syphilis, and the child was treated first by mercury and chalk powders, and afterwards by a mixture of bichloride of mercury and iodide of potassium, but the eruption proved very obstinate. One year later, in February, 1885, I noted that the eruption had gone, but the child had developed severe dactylitis of the fingers and toes, which further puzzled me to discriminate between syphilis and tuberculosis, but on the whole I think the dactylitis was tuberculous.

Alice H., aged 11 months, a well-nourished suckling, with good physiognomy, was brought to me on March 11th, 1885, with a little dry papular eczema of the face over the right eyebrow. The child had six teeth, which it cut without difficulty, but was slightly rickety and anæmic, had a large abdomen, coughed, and also sweated freely about the head. On March 12th a papular eruption appeared suddenly over the face and body, and more gradually on the arms. It was evidently very irritable, and the child was very restless and liked to be rubbed. The eruption consisted of little papules of a special red colour, varying in size from a pin's point to a pin's head, smooth and shining, not umbilicated, some not angular in outline, but most, and especially on the body, obviously angular. There were no vesicles. The scalp was free from eruption, the face covered below the level of the eyebrows. A little existed round the neck, and then in the middle of the back the eruption commenced again, and covered the lumbar region, especially the buttocks, thickly. It extended down the backs of the legs in a less degree, but did not involve the feet. In front of the upper part of the trunk there was hardly any eruption, but it was very copious round the flanks and over the abdomen. A few papules appeared down the front of the thighs, and more or less all over the arms. As for the grouping the papules were mostly discrete, but tended to coalesce into little irregular, and then scaly, patches.

The eruption was almost certainly not papular eczema. The character of the papules, their grouping and distribution were not like those of eczema. It was not miliaria. It was not a papular eruption in which the papules assume a flattened form as they decline, as is so frequently the case in lichen urticatus. The child was vaccinated at three months old, and did well. There is no clue to syphilis in the family or personal history, beyond the fact that the child "had the thrush go through her" at a month old.

Grace D., aged 3 months, a fairly healthy looking child, came under my care on May 28th, 1885, with a widespread papular eruption which had commenced on the genitals one month previously. The buttocks were covered with a confluent red sheet of eruption, which extended on the inside of the thighs nearly to the knees, forwards over Scarpa's triangle, and upwards over the groins and pubes half way to the umbilicus. The papules covered the knees, a few were dotted over the popliteal spaces and the legs to the insteps were thickly studded. A few appeared about the arms and trunk, and there was an aggregation on each cheek. The itching was apparently slight. The eruption began as tiny pin-head-sized papules, mostly smooth, but some faintly scaly, and joined together into irregular or occasionally rounded patches. Each tiny papule was wonderfully like lichen planus, a peculiar red in colour, flattened, smooth as a rule, shining, but the border was not very abrupt or very angular, and somewhat ill-defined and rather irregular. There was no umbilication. There was certainly a strong suspicion of syphilis in this case, both in the distribution of the eruption and the history. Grace was the third child, and had rather a sunken bridge to her nose, and snuffles, and slight hoarseness, which persisted for several months. The spleen was not enlarged, nor was there craniotabes. The two elder children "had the thrush go through them," and in the second child the rash lasted about a month. There was also a "mishap" between the second and third child. Against syphilis was the fact that the eruption persisted for several months under mercurial treatment, though it gradually disappeared.

Ernest R., aged 14 months, was brought to me on May 12th, 1887. He seemed to be in good health, but was slightly rickety, and I could just feel the spleen on palpation. He was the last of four children, and the only one surviving. The father was dead, and the mother was subsequently operated on for necrosis (?) of the jaw. When I saw the child he presented a typical lichen planus eruption about the wrists and forearms. The eruption was a peculiar red colour, shining and smooth, abruptly raised and flat-topped, angular in outline, miliary, discrete but tending to confluence. There was a little eruption on the cheeks and the backs of the legs, and a few, but less typical ones, dotted down the back. There were no signs of itching. The duration of the eruption was one month, and it came on directly the child was weaned. I could get no clue to any syphilitic taint. The child was given a mixture of cod liver oil and iron, and in one week the eruption was fading away rapidly.

Lucy P., aged 13 months, a healthy-looking child with decayed incisors was brought to me on May 16th, 1887. She was the youngest of five children, all living. None had suffered from any eruption. There had not been any mishaps or still-births. Lucy was free from snuffles and her spleen was of normal size, but on her back were two "phlegmons" (phlegmonous syphilides or cutaneous gummata). A non-itching eruption, strikingly like lichen planus, which had been out three or four months, was thickly disseminated over the trunk, especially the lower half, the flanks and abdomen. The papules were red, pinhead-sized, flat-topped, abruptly raised, and for the most part rather rounded, though some were angular in outline. They were distinctly developed about the follicles, and for the most part presented a little central plug. Almost every follicle seemed affected over the lower part of the trunk. Over the pubic region and front of the thighs they were indistinguishable from lichen planus and redder than on the trunk, but not very angular in outline. Down the back of the thighs they were less numerous and rather larger.

Hilda M., aged 16 months, a fat, pasty-looking, only child, was brought to me on February 23rd, 1888. The spleen was normal in size, the glands not enlarged, and the bridge of the nose rather flattened. The child snuffled, but the mother was positive it was cold, and she had never noticed it before, nor had she seen any other eruption than the one now existing, which had appeared two months previously. The eruption came on the thighs first, and was always rather itchy. When I saw her there were a few papules on the right side of the nose; the neck was free. The upper back was thickly sewn with papules, miliary, follicular, hardly at all coloured, only slightly prominent. The lower trunk was still more thickly covered with red papules, in size from a pin point to the head of a big pin. The smallest were rather conical, and as they enlarged they flattened down, but never became absolutely square-topped. Their outline had rather a puckered appearance like a miniature keloid. They were quite smooth. They tended to run into sheets just like lichen planus, and then delicate scales collected on them. The small of the back was the part most thickly covered. On the buttocks the papules were sparse and larger, with a little yellowish follicular central point. On the legs they were more sparsely scattered, but thicker on the calves. The popliteal spaces were free. The papules were scanty on the backs of the arms and forearms. Only some on the limbs were obviously follicular, with a minute central plug, and a very few were surmounted with a tiny scale. The eruption was very indolent, and the resemblance to lichen planus remarkable. The mother's father died of phthisis, and all his relations died young.

Geo. B., aged two years and five months, was brought on February 4th, 1889. He was anæmic, and had a coated tongue. The miliary eruption, which was very itching, evolved three weeks previously. The papules were minute at first, but distinctly increased in size. It was disseminated all down the front of the leg and the thighs to the dorsum of the feet. Over the back of the trunk were papules and also patches of brownish eruption. The front of the body was but slightly involved. A closer examination showed that the papules were from a pin point to a pin's head in size. In the brownish confluent patches, which reached the size of the finger nail, the individual lesions could not be clearly traced; but about these were many isolated papules, flat-topped, abruptly raised, smooth and shining. Many presented a central pit. On the buttocks the eruption was thickly sewn, and a scratch was seen on which a beaded row of angular papules had developed, just as we see in lichen planus. The flexures were comparatively free; a few were dotted down the outside of the arms as far as the back of the hand. The colour of the lesions generally was a pinkish red, passing to a brown shade. These papules were more indolent, and much paler than those of eczema. The spleen was not enlarged, and there was no clue to syphilis.

I have always experienced great difficulty in deciding upon the nature of these cases. At one time, influenced by certain symptoms and probabilities in the earlier cases, I was strongly inclined to attribute them to syphilis, but I wavered in my opinion then, and still more later on, so that I am now disposed to think that it is probably correct to call them lichen ruber. There can be no question about the striking resemblance of the eruption to the true lichen ruber of adults, but there are differences to be noted.

In our endeavour to reach a sound conclusion it is important to allude to a fact well known to every dermatologist, that apart from lichen ruber more or less smooth, reddened, flat-topped, miliary papules are met with in several different affections. Indeed it may be laid down that miliary papules of any kind, when they are undergoing involution, flatten down and tend to simulate lichen ruber papules. We see this constantly in the papules of eczema, for instance, and we all know how closely some syphilides may simulate lichen ruber both in their stage of involution, and more rarely as a primary condition. But in infants the difficulty experienced is still greater. Any one who has studied attentively the affection known as lichen urticatus must have constantly seen the declining papules flatten down and look like those of lichen ruber. I have over and over again observed the most striking simulation, though the diagnosis has been made clear by other symptoms. Then again the attending physicians at a children's hospital know that as surely as the warm weather comes round the crowds of rickety children appear more or less covered with miliaria, illustrated, I believe, under the name "lichen infantum" by Mr. Hutchinson in his atlas of skin diseases. Now, when this miliaria is dying away the papules flatten down into lichen planus-like lesions. I need not illustrate the matter further, for I have said enough to enforce the point that lichen ruber may be simulated in infants by many conditions, and that the greatest care and circumspection is required in arriving at a correct diagnosis.

This much we may say with confidence, that when we have carefully excluded all the possible simulating conditions, such as miliaria, lichen urticatus, papular eczema, etc., and when we are sure we have before us one of these probable lichen ruber cases, then we have to deal with one of three things—either a syphilide, or a true lichen ruber, or a disease *sui generis*.

Now, in the first place, with regard to syphilis, I have already referred to the occasional close resemblance which a miliary papular syphilide developed about a follicle, and especially in the period of involution, may bear to lichen ruber. This is especially the case when the eruption is copious and the corymbose character of the distribution is not apparent. There is also this superadded difficulty, that whereas in adults one will observe probably other corroborative symptoms of acquired syphilis, in infants one has to do, almost without exception, with hereditary syphilis, which may be, and frequently is, a much more entangled skein to unravel. The difficulty in estimating the influence of hereditary syphilis in the production of various diseased conditions, such as craniotabes, rickets, geographical tongue, etc., is well known, but only to be fully appreciated by those who have sought to solve such puzzles. It will be noticed that the ages of my cases were respectively 3, 7, 11, ·13, 14, 16, and 29 months, so that the eruption, as far as the age is concerned—except perhaps in the last case—might well have been syphilitic. Whilst a syphilitic taint was probably present in some, it is only reasonable to suppose that such an illness might even predispose to an attack of lichen ruber, without being the direct cause of it. This difficulty and even impossibility of excluding a syphilitic taint will be readily appreciated. Have we any further guide?

I was formerly in the habit of keeping systematic notes of all the indisputable cases of hereditary syphilis that came to me, and following the cases up, and I never saw one of these so-called lichen ruber outbreaks occur in any of these instances. Whenever a certain number of papules resembled lichen ruber, there were always other phases of eruption (multiformity) which made the diagnosis of syphilis certain. In the next place, it will be noted that in none of these cases of lichen ruber did the eruption occur in chronological order after well defined syphilitic eruptions. Then again, in my experience it is usually the case that relapsing syphilides tend to be localized and to keep to a similar type, with some few exceptions, such as condylomata, the rare tuberculated syphilide, and gummata. Further, it is not usual for relapses to be so widespread as in these lichen ruber cases. An undue stress may, however, be easily laid on these latter arguments, and it would be rather begging the question to point out that there are features in which these eruptions differ from syphilides.

The resemblance of the lesions to lichen ruber is exceedingly close. They keep, however, to a small pattern, and are not so abruptly raised out of the surrounding skin as in the adult, but often give one the idea of having been acutely evolved. When once developed they are for the most part decidedly indolent, and it is most important to note that they tend to resist anti-syphilitic treatment. Occasionally the eruption rapidly disappears as it came, and I quite agree with Dr. Crocker that a tonic treatment is the most effective in expediting their disappearance. I have not found arsenic very efficacious, but then I have not pushed it far.

The shape varies. Sometimes many lesions are angular in outline and quite flat-topped, like a table-land; but many are seen to be obtusely rounded. Scales are absent. They tend to join together in little psoriasiform patches just like the lichen ruber of adults, but with less scaling. The umbilication is often remarkably constant—indeed, in many lesion there is quite a little crater and plug. The colour of the eruption as a whole is decidedly peculiar, and attracts special attention; but when the lesions are examined in detail it will be found to vary very much from the normal colour of the skin to a purplish red. The subjective sensations appear to vary, but this is not so easy to estimate in the infant. I have never seen the lesions extend peripherally to any extent, nor have I noticed the formation of verrucose areas about the legs, and, indeed, the cases appear to be of too short duration for that. The distribution does not help us very much, for there are important differences in the infant and adult for eczema, syphilides, and other eruptions. All I think we can say is that we cannot, from the distribution, found an argument against the lichen planus nature of the affection. It is to be noted that the face may be involved.

One further observation must be added. We are all agreed that lichen ruber is most commonly met with between 20 and 50 years of age. In my experience it is rarely seen much below 20 years, and I can only find in my notes the record of three cases of indisputable lichen ruber below 16 years, viz., at 7, 13, and 15 years of age respectively. If this is the experience of others also, it is a very notable fact that after infancy lichen ruber gets still more rare throughout childhood to about twenty years of age.

On the whole, I think we must accept the position until it is effectively assailed, that these cases should be considered as lichen ruber, possessing certain features peculiar to infancy.

ON THE EMPLOYMENT OF TUBERCULIN IN THE TREATMENT OF LUPUS, AND ON SOME OTHER NEW REMEDIES FOR THAT DISEASE.

An Address delivered before the Medical Society of Hamburg, on March 31st, 1891.

BY P. G. UNNA, M.D.,
Hamburg.

(*Conclusion.*)

We must theoretically from the foregoing facts come to the conclusion that the inflammatory hyperæmia *loco affectionis* is also primarily a sequela, which leads us to assume, on the one hand, that there is a certain amount of lupus tissue which perishes within a given time; on the other hand, a certain degree of weak tone in the vessels in the immediate neighbourhood. If the quantity of the lupus material which is absorbed be too small in the given period, or if the nearest vessels be far removed or considerably raised in tone, then the inflammatory hyperæmia, Koch's positive reaction, may not appear whilst the absorption nevertheless is proceeding. The first consequence of Koch's injection is, therefore, a change in the lupus tissue itself, on the character of which I took the liberty of making some remarks in my last lecture.

After these experiences the result of the treatment of the tuberculous eczema with tuberculin was not only intelligible, but self-evident to me. All concomitant, superficial, tubercular catarrhs (conjunctivitis, keratitis, rhinitis,) and eczema showed only the "negative reaction" in the sense above discussed, a paling down, diminished swelling, drying up on the conjunctiva, combined with a surprisingly quick improvement of the photophobia.*

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* The children opened their eyes spontaneously after the first two or three injections. I have never seen so quick an improvement of these tiresome symptoms with any other treatment.

I have made use of only the very smallest doses, beginning with 0·001 in the case of the patients in question. It was only near the margin of the cornea that new phlyctenulæ sprang up several times directly after the injections, which, however, quickly disappeared. After what I have said up to the present moment, I can only look upon this positive reaction, which is a very important one where the eye is concerned, as a sequela of the induced absorption.

The reason is that in all these catarrhs, and especially in tubercular eczema, there is not enough tubercular tissue present to respond with an inflammatory hyperæmia. A simple absorption (an anæmic drying up) of the catarrh takes place. But I will not omit to add here, that the definitive curative effect varies very much according to the particular nutritive ground of the region affected. If under Koch's injections a tubercular eczema of the upper lip heals directly, and at the same time radically, this does not mean very much, considering the bad nutritive ground which the skin furnishes, and the facility with which this catarrh is also curable by other means, *e.g.*, by oxide of zinc and mercury salve mull. On the mucous membranes of the eye and nose, on the other hand, where the tubercular bacillus clinging to the surface finds much more favourable conditions for growth, I have not seen any radical cure in the six cases to which I have referred. With the disappearance of the slight amount of tubercular tissue the effect of the injections was at an end. The favourable primary effect, especially the constant reduction of photophobia, gives time and opportunity for attacking energetically the remaining poisonous germs with other tried remedies; for these catarrhs of the mucous membranes tuberculin can only be reckoned as a very useful adjuvant.

After the communication of these facts, you will perhaps allow me to remark as to the worth of the remedy that I, personally, consider the limited effect of tuberculin on lupus fibroma above described to be a therapeutic gain that cannot be too highly valued.

We possess innumerable mechanical and chemical, and also efficient, means to destroy the soft plasmoma of lupus, which is free of collagenous matter. The removal of the sclerotic new growth in lupus was, on the other hand, till now one of the most ungrateful therapeutic tasks. Still, it is one of the most important, for not only are plasmoma nodules hidden within these neoplasms, not only do they present a pathological growth if not itself infectious, at any rate, one produced through infection, but—and this is practically the point of importance—one which leads to all the disfigurements of the surface which the unfortunate subjects of the disease have hitherto suffered from throughout their life-time, after the best methods of treatment employed:—*e.g.*, ectropion of lips and eyelids, closure of the nostrils, the disfiguring swelling of the nose, cheeks and ears. In the future these disfigurements may be reduced to a minimum by Koch's injections, for Koch's treatment produces, in the highest degree, a most satisfactory cosmetic result, and that through its specific absorptive influence on the lupus fibroma. From this just appreciation of the chief (and unfortunately, the final) effect of the Koch treatment most observers have hitherto been lured by over-valuing the importance of the consecutive inflammatory hyperæmia, which is, to my mind, one of the unimportant symptoms. The therapeutic value of this collateral reaction is not that which is usually ascribed to it. Still, the phenomenal triumph of the Koch treatment was due to it. Just think if the first observation had been made with favourable but "negative" reaction! In that case Koch's remedy would have done nothing different from mercury in any form of syphiloma found in any part of the body, causing its dissolution and absorption; no one would have discovered in it a new principle of treatment beyond that the curative agent was derived from the original bearer of the disease. But the striking reaction in the neighbourhood of the tubercles, which is the peculiar effect following large doses, appeared to produce a local effect never previously observed or caused by any known remedy; and it seemed to justify the most sanguine hopes—albeit merely an avoidable concomitant phenomenon calculated solely to distract attention from the really valuable, although limited effect of the remedy.

All experienced observers are unanimous that there can be no question of a radical effect exerted by tuberculin upon lupus. I had long hoped that Koch had been deceived with regard to the essential point of the influence of tuberculin upon the bacillus, but here he has seen rightly, at least for tuberculin as it now is. For him, not being a dermatologist, it was very pardonable to think that he might nevertheless cure lupus by tuberculin alone, and that he could starve the tubercle bacilli in the skin by producing immunity of the whole body.

But it is a too common experience in dermatological practice to find new lupus nodules spring up suddenly in patches of lupus apparently healed, and which have remained inactive for many years. For instance, I am now treating an old woman who acquired lupus forty-nine years ago; she appeared to remain perfectly well for thirty-seven years, and only after that period did she exhibit in the scar a single lupus nodule. I have also observed an old gentleman, who, as a child, suffered from a tubercular affection of the left nostril, and left-sided strumous snuffles, and only after many decades did a small lupus patch appear in the left nostril, accompanied by renewed signs of irritation in the eye. In these cases the idea of fresh lupus-infection cannot be entertained because such an event is of extremely rare occurrence in people of advanced age; they prove, like many similar cases, the incredible tenacity of the tubercle bacilli when they once become passive on soil unfavourable to them, and incarcerated by homogeneous cells. The few bacilli present in lupus are thus by means of Koch's injections freed from their plasmoma—and fibroma—surroundings, and this only to a certain degree, without being attacked themselves. The histological researches of Kromayer, Riehl, Schimmelbusch, Doutrelepont, and others, have unanimously shown that the tubercles remain in the tissue as before; according to my views the tubercles of these authors represent the homogeneated immediate surroundings of the bacilli.

I have, on the other hand, been able to convince myself by the examination of excised pieces that the number of the plasma cells considerably diminishes towards the periphery. It is, indeed, intelligible that tuberculin should exercise less influence on the cells that are under the direct influence of the bacillus than on the less affected plasma-cells. The flooding with lymph, and migratory cells, directly following the injection, leads to changes in this respect because the homogeneated foci also bear this invasion passively. After the destruction of the migratory cells which remain in them, those foci resume exactly the same appearance as previously. The flooding with lymph might certainly be of service in so far as by it the bacilli might be washed out of the homogeneated foci and carried off.

I, on that account, requested Dr. Berliner (Aix-la-Chapelle), who was one of my assistants last year, to search for tubercle bacilli in the secretion which oozed out after the removal of the scabs, and he did so in six cases. He made use of the excellent method of Czaplewski, but was unable to discover a single tubercle bacillus in forty-five carefully examined preparations. Similar investigations have since been made by others and, it is said, with a positive result. I fail to see, however, in the reports the exact proof of the existence of the tubercle bacillus among the bacteria that were found, and I, therefore, take the liberty of expressing some doubt as to whether anyone has yet succeeded in demonstrating that tubercle bacilli have been flushed out of the lupus, so to speak, by tuberculin.

If this could be proved with all due care (as, for instance, excluding smegma bacilli) then our endeavour would necessarily have to be reversed, viz.: to induce a profuse secretion by tuberculin. I was successful in this respect at first by the simultaneous application of gutta-percha tissue, salicylic acid plaster-mull, &c., without modifying in any way the unsatisfactory final result. In my first twelve cases, kept under observation from four to five months, the same results have followed, *i.e.*, a very quick relapse has taken place on almost all spots that had, to all appearance, been cured. In fact I have come to the conclusion that relapses after the Koch method of treatment occur, generally speaking, sooner and more certainly than after previously employed methods, *e.g.*:—Salicylic acid creasote plaster-mulls, sublimate stick, fine cautery (Microbrenner), &c. Should this experience be found to agree with that of other colleagues, then we should really be obliged to assume that by the removal of the barricade of plasmoma cells we place bacilli in the most favourable condition for rebuilding up such a wall, and reproducing lupus tissue. I, however, feel bound to defend Koch's method against the allegation that it leads to a scattering of the bacilli into the neighbouring parts. I have nowhere met with such an occurrence, notwithstanding all relapses. The new, very small nodules were always exactly in the centre of the old lupus patches, so that in each instance my impression was that the absorption had always extended close up to the centre of the affected area. If however a scattering abroad of bacilli, (not to mention the more immediate sources of mischief), could with certainty be proved, then even the flushing away of them outwards upon the surface would certainly be possible. But up to the present I have not discovered any proof for the one or the other, and I consider both very improbable. A central recurrence of lupus alone is, however, always a great advantage. Koch's method resembles those external chemical remedies which do not produce any diffuse inflammation of the skin (especially as we find with treatment by salicylic acid creasote plaster-mull), in favourable contrast with the very frequently eccentrically occurring relapses after scraping out, scarification, treatment by pyrogallol, &c. The central relapses can, when the patient is properly watched, hardly be looked upon as a great drawback, only one must then not wait till the nodules have time to grow much. If these be treated in time, when they are only the size of a mustard seed, or smaller, one touch with the fine cautery (Microbrenner) will entirely destroy them at one sitting, without having to fear another relapse, as now essentially the centres of the affection can be struck, which was not so with our previously arbitrary cauterizations.

If one wishes, therefore, to treat lupus with Koch's method one must give at first such doses that an absorption of the chief mass be induced. After the reaction has taken place we must accelerate the shedding of the scabs and the absorption of the plasmoma by a daily application of zinc gelatine with a brush; the parts having been previously washed with a warm solution of soap. If the absorption be going on, we can without fear continue giving smaller doses, and we shall find that the absorption still advances till it seems that a cure has been effected at many parts; other smaller patches, however, prove to be refractory. One must then lose no time by trying increased doses, which only lower the patients and exhaust their patience, but must treat these spots locally with other lupus remedies and watch, in the mean time, the apparently cured parts, in order to apply the fine actual cautery immediately to the most minute freshly reappearing spots. It is just as necessary with Koch's treatment as with every other that the cases should be kept under observation for a long time afterwards. A preliminary destruction of the lupus mass before employing Koch's treatment is of no great value, because it is just in this that the principal effect of tuberculin lies. I must at once utter a warning against a previous scraping, because the relapses which are sure to occur might then appear eccentrically, as is not the case after treatment by tuberculin. If one wishes to interfere previously one must apply salicylic acid creasote plaster-mull or one of the newer chemical remedies, which I will discuss presently.

So far, then, it would appear that Koch's treatment is distinctly indicated:

1. In the case of very extensive multiple lupus foci; because with these cases much can be gained with one blow by this method, while all the external methods of treatment of these cases have many drawbacks.

2. With all the forms of lupus fibroma, especially of such as are complicated with ectropion of the eyelids and lips, occlusion of the nostrils, contraction of the joints, &c.

3. With lupus of the auditory canals and the outer ear, as the disease in these situations is the least accessible to the hitherto employed remedies.

4. Whenever it is required to distinguish with certainty the lupus fibroma from the genuine scar, or when it is necessary to recognize plasmoma nodules in scars.

In these cases I should not like to abandon Koch's treatment, at least not until we can replace it by one still more efficacious and milder. Till then our endeavour must be to effectually supplement his method. Perhaps you will allow me to add a few more words on this point. I should like to make a short communication on a series of new remedies, the discovery of which is due to the endeavour to remove quickly and without operation the small relapses which unavoidably occur after Koch's treatment.

In the first place, it seemed very desirable to recognize these most minute nodules in spite of the difficulties caused by accidental scales, and by the situation of the nodules deep in the corium. As a simple greasing with any kind of fat is, as you know, of great assistance in this respect, I went a step further and applied to the suspected parts of the skin such remedies* as we use in histology for clearing sections. I preferred two among these (aniline oil and oil of cloves) because they are capable of absorbing most water, and are therefore able to penetrate not only into the horny layer, but also into the succulent epithelium and into the cutis.

Besides these, I also made use of several phenols, as they, besides possessing great antiseptic properties, if employed in a concentrated form, likewise make the tissue transparent, because they are able to penetrate equally well both fatty and moist substances; and lastly, I employed also creasote, lysol and camphor.

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* Always by means of an extemporized swab made from a piece of cotton-wool wrapped round the end of a match.

The many small relapsing lupus nodules in six very extensive cases of lupus gave me sufficient opportunity to try all these substances in regard to their behaviour to lupus in one and the same patient, and then to compare their effect upon different patients. I also had the opportunity to extirpate, and examine, later on, nodules which had been treated with these substances.

As none of these substances were quite without effect on lupus, I divide them, first of all, into two groups, according as their application is accompanied by pain or not. This is the most important question in the ambulant treatment of lupus.

A. Substances which cause Pain.

1. *Acidum carbolicum liquefactum.*—Pure carbolic acid, as a simple paint, is a remedy of the first rank for the cure of lupus. Immediately after it is painted on the skin is rendered so transparent that one discerns even the smallest nodules. Rather violent pain begins soon after its application, but it ceases completely in a short time. The albuminoid substances of the horny layer coagulate in the meantime, forming a whitish membrane, like that produced by salicylic acid. This membrane remains, however, thinner and more adherent. It permits of further applications during the next few days, and these are by far less painful than the first. If we allow, after two to four applications, the horny membrane which has become thickened, to fall off, we find under it a surprising improvement of the lupus, as good as is ever seen after a course of Koch's injections, and that too without any inflammatory phenomena. When extensive surfaces are to be painted at one and the same time, I should advise the employment of local or general anæsthesia, but above all caution to guard against possible carbolic acid poisoning, especially in the case of children. Only small parts should be treated at first, and they must never be covered, after the application, by any impervious substance; the urine should be watched, &c.

2. *Ortho, meta,* and *parakresole* of different origin showed on the whole the same effect as concentrated carbolic acid, but no special advantages over it. The pain begins somewhat later, but lasts so much the longer. I cannot particularly recommend them.

3. *Coal-tar creasote* has an effect very similar to the above-mentioned phenols, of which latter it is largely composed. The clearing and healing effect is similar and the pain just as considerable. It may be employed under certain circumstances as a cheap substitute for pure carbolic acid.

4. *Beech-tar creasote.*—The anæsthetic effect which this substance (as well as guaiacol) causes slowly—but permanently—in the salicylic-acid creasote plaster-mulls, is of no value as far as any caustic effect is considered. The pain is, however, always less considerable than with the phenols. The clearing-up effect is likewise present, but the flattening-down and the definitive healing of the lupus nodules take place slower, and not so thoroughly. As a less dangerous remedy we can give this substance into the hands of our patients themselves for repeated, and not very painful, cauterizations, perhaps for after-treatment.

B. Substances which do not produce Pain.

1. *Aniline Oil.*—This substance, which is now used so much in histology, can also be applied with benefit in the therapy of lupus, especially to render surfaces of the lupus perfectly transparent. No subsequent coagulation occurs to render the tissue opaque; one is therefore able to treat individually and deliberately every single nodule that has become visible, for a considerable time afterwards; for example, with the fine-pointed cautery. Besides this, it causes absolutely no pain when applied, and as a vehicle for the phenols it renders their application painless, even when added to them in small proportions. As it is known, we can also by an addition of from 20 to 30 per cent. of oil to the concentrated carbolic acid neutralize its caustic and painful effect; but then we also prevent, to a great extent, its deeper penetrating and lupus-destroying effect. If we mix two parts of carbolic acid with one of aniline oil the penetrating power of the carbolic acid is not lessened, as aniline itself is also capable of penetrating moist tissue. For the same reason the latter is even a lupus-

destroying remedy, if it be applied in sufficient quantity, as for example, as a compress saturated with aniline oil, and covered with gutta-percha tissue. But I cannot recommend it as a cure for lupus, as it is a substance of a too poisonous nature, when applied in this form. With such an application a perfect stasis in the skin is induced, which in some places may actually pass on to a state of necrosis. If this application be discontinued at the right moment the skin appears grey-blue, cyanotic, quite sunken in, and the lupus nodules are flattened or have disappeared. But by this time signs of a general intoxication are invariably present (exactly as with phenol and pyrogallol poisoning), even if only very small surfaces have been so treated.* Aniline is a reducing remedy of the first rank, like pyrogallol, but superior to the latter in power of penetration.

I can therefore recommend aniline only as an anodyne addition to those caustics which are not covered with impervious dressing, and especially for the face, as it diminishes the hyperæmia which occurs so very frequently after cauterizations.

2. *Oil of Cloves.*—The oil of cloves shares with aniline the property of making the tissues transparent to a certain degree; it possesses the same penetrating power, but in almost all other respects it behaves very differently from the latter. It is a relatively, if not a quite, innocent remedy,† and can therefore be applied in covered compresses, in which case every individual nodule soon swells up above the surface. As early as the second day these nodules turn yellow, acquiring subsequently a dark yellow-brown margin which passes a short distance into the unaffected skin; finally they suppurate, the lupus tissue at the same time breaking down. It is the only painless suppuration of lupus nodules which I have met with up to the present. As the normal parts in the neighbourhood are gradually attacked by the oil of cloves it is advisable to discontinue its application, and complete the healing of the patches with other remedies (especially camphor) which we will discuss directly. On account of the innocuous

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* In all cases of intoxication by bodies similar to phenol one must administer at once large quantities of diluted hydrochloric acid (or sulphuric acid) as well as champagne.

† I am not yet able to say whether oil of cloves is really quite innocent when used in great quantity, or, more especially, over a large extent of surface, and I should like to request pharmacologists to interest themselves in this practically important question.

nature of oil of cloves I have had plaster-mull made containing it, for the purpose of producing suppuration of the small lupus nodules. I recommend, therefore, the oil of cloves partly for use alone in the early treatment of lupus, applied in considerable strength as a covered compress, plaster-mull, and so on, and partly as an anodyne addition to the phenols in all cases where the addition of aniline oil is not advisable, especially for employment on the extremities, because here, as compared with the face, a more considerable swelling and hyperæmia of the nodules is often desirable.

3. *Lysol* I have up to now tried only as a plaster-mull, as a type of the saponified, and therefore less pain-producing, phenols. The application is not painless, but nearly so. In contrast to the salicylic-acid plaster-mulls only a very fine, white film of skin is destroyed, which is removed with the plaster twenty-four hours afterwards. In this way the skin under the plaster is always found to be clean as if polished; all the nodules can be seen exceedingly clearly, and they diminish slowly in size. Lysol deserves, at any rate, a thorough trial in other forms as well.

This completes the list of remedies for lupus that I made use of for simultaneous diagnostic and curative purposes. After having had my attention drawn to camphor by the good effect of camphor salve-mull in the treatment of ulcerated lupus, I tried this remedy (pure), rubbed down into a paste with oil of cloves, as a salve-mull and combined with chloral; it possesses qualities which can be taken advantage of in the therapy of lupus. It prevents and removes inflammation, cleansing the nodules which have been broken down by other remedies, has an uncommonly powerful keratoplastic effect, is not merely itself painless, but possesses anodyne properties, especially as chloral-camphor, and appears finally in its concentrated form to develop a directly destructive action upon the lupus. I can, however, not yet speak with certainty on the latter point on account of the shortness of time for observation. Camphor is excellent for after-treatment following the applications of phenols or clove oil.

These investigations with a series of phenols, ethereal oils, and like substances, which are suitable for discovering lupus nodules, and at the same time for healing them, show that we possess in pure carbolic acid and the creasotes remedies, certainly painful for a short time, but very serviceable for the cauterization of these nodules. In aniline oil and clove oil, on the one hand, we possess means of dilution and of rendering the former substances painless, and on the other hand, substances having a peculiar influence on the lupus itself; and in camphor and lysol valuable adjuvants in the treatment of lupus, if not more. I can, however, already say with certainty that surface cauterizations with concentrated phenols cure lupus quicker and more radically than the popular scrapings, and therefore are, at any rate, far preferable to the latter.

CLINICAL OBSERVATIONS ON THE ACTION OF TUBERCULIN ON LUPUS.

BY H. LESLIE ROBERTS, M.B.,

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THESE observations are given with caution and much diffidence, with no intention of passing a verdict on the value of tuberculin.

The whole matter is to us still a question toward which many appearances may seem to point affirmatively, and others negatively.

Our experience is limited to twenty cases of lupus, which certain medical gentlemen of the Royal Infirmary, and the Parish Hospital of Liverpool, and the Borough Infirmary of Bootle most generously placed under our care.* A certain value in these observations is lost from their one-sidedness. Thus in the important question of the diagnostic value of tuberculin, we can only speak of syphilis (and one or two other diseases) as a contrast to lupus. Here some valuable information was gained; we learnt that diseases so remarkably like lupus as to pass for it, were related to tuberculin differently from lupus. No reaction of any kind occurred after repeated injections.

What were the conditions present in lupus, but absent in syphilis, which took part in producing the reaction? In one of the cases the syphilis had the form of diffuse inflammation on the nose, the cheeks, and the upper lip (butterfly form); in the other case one cheek was cicatrized; but other appearances indicated its nature—a half-moon-shaped ulcer near the inner angle of the left eye, and the lower boundary of the old scar on the cheek being raised and serpiginous. Are we to assume that reaction in *lupus* is a definite and unique inter-reaction of tuberculin and tubercle, and want of reaction in the *lupoid* diseases a matter of course, because one of the necessary material conditions, tubercle, is absent? The answer we delay till certain other facts have been more carefully considered and explained. Some of these facts come within our own cognizance, namely, that there are diseases of the skin other than lupus which alter their appearance when tuberculin acts on them. These alterations, moreover, have a similar appearance to those of lupus. Chilblains are an example, and one on which we have to offer some remarkable experiences. We may arrange these in the following way:—

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* We wish to express our indebtedness to Mr. Mitchell Banks, Dr. Davidson, Mr. Parker, Mr. Paul, Dr. Barron, Dr. Alexander and Dr. Robertson for their cases, and to the Medical Residents of the Hospitals for their courtesy and help.

1. Chilblains formed in feet previously healthy, an erythematous eruption, symmetrical in form and distribution, appearing after the fifth or sixth injection of a medium dose (one case).
2. Chilblains (blue toes and feet) pre-existing; cyanosis increased with symmetrical swelling, but no ulceration (two cases).
3. Chilblains pre-existing in a person with sluggish circulation, feet painful, swollen, suppurating above the heels, and suppurative onychitis of right great toe; shedding of all nails on both feet (one case).

Why did the chilblains react to tuberculin? Are they tubercular, parasitic, or merely a *pars minoris resistentiæ?* If tubercular, then they are the same in nature as lupus (as things which are equal to the same are equal to one another). But tuberculin *tends* to cure lupus, and tends to make chilblains worse; hence if chilblains are tubercular there are two kinds of tuberculosis relative to tuberculin, one tending to cure, the other to become worse, which inference is highly improbable. Therefore, chilblains are probably not tubercular. If parasitic, which is quite possible,* then possibly other germs besides bacilli tuberculosis have products able to combine with tuberculin in causing suppurative inflammation. But we are able to record another fact, how an old man had a chronic eczema stimulated by tuberculin into acute eczema. This chronic eczema was not tubercular, it might have been parasitic, but it was certainly a *pars minoris resistentiæ.*

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* Dr. A. Stewart, of Edinburgh, informs us of the fact that he has succeeded in inoculating himself with chilblains from his son. On this question of the parasitic nature of chilblains compare Iscovesco, International Congress of Dermatology, &c., Paris, 1889

But the reaction of tuberculin in chilblains and eczema (howsoever it is caused) differs in its *intention* from that of lupus; for in our experience, *the non-tubercular reactions increase the original mischief, while the tubercular ones tend to ameliorate them.* But other diseases, which have not come under our cognizance in this relation, have their external appearances altered by tuberculin: leprosy and lupus erythematosus are examples. Hence the question, "What is the essential condition which evokes reaction?" is not so simple as it looked at first. But, as already mentioned, these reactions are not all identical either in time of onset, duration, or intention. Therefore, there is some material condition or group of conditions in lupus which evokes a reaction with tuberculin which, like the reaction of other morbid tissues with tuberculin, may take the form of an effusive inflammation, becoming suppurative; but unlike these other reactions with tuberculin, its intention is curative. Admitting the justness of this reasoning, we are led to conclude that a peculiar relation (chemical or other) exists between tuberculin and tubercle, unlike that between tuberculin and any other disease. But tuberculin being a product of tubercle bacilli, it necessarily follows, as a corollary of the last conclusion, that a peculiar relation must exist between lupus and tubercle bacilli. If we compare the tubercle-foci in lupus to a natural factory of tuberculin, in which tissue lymph is substituted for glycerine, we have an explanation of a clinical fact that *lupus in part is self-curative.* The nodules situated in the highly vascular and nervous papillary portion of the cutis in the immediate neighbourhood of the epithelium excite frequently a suppurative inflammation; this epithelium ruptures, and the products of inflammation escape to the surface along with all, or portions of, the tubercle nodules. Here is, we believe, a parallel action of tuberculin and the tubercles of lupus. Both take part in exciting effusive inflammation in the papillary portions of the dermis. But in deep portions of the dermis both act differently on account of a difference of structure. The lower portions of the dermis are less vascular, less nervous (therefore less excitable), and more intricately fibrous than the papillary portions. Inflammation in the deep part tends towards exudation or thickening. If, therefore, the lupus-nodules in the deep dermis excites inflammation, it will be with the intention of isolating itself from the rest of the dermis behind a wall of denser fibrous tissue.

How tuberculin acts in the same portions of the dermis we cannot personally tell on microscopical evidence. In our clinical experience we have not yet seen deeply-situated tubercles excite under the influence of tuberculin any exudation that reached the free surface of the skin. We have been able to recognize deeply-situated tubercles in their original sites, unaltered in their appearance and colour, after many weeks of tuberculin administration.* Therefore, given lupus in which all, or nearly all, of the nodules are deeply situated, and if the superficial ones are small, isolated, and far apart, effusive suppurative inflammation will not be excited. Thus all lupus does not respond to tuberculin by suppurating, just as suppuration is not a constant change in tissues invaded by lupus nodules. This, however, is *one* of the effects occurring always when the tubercles are active, superficially situated and abundant. But is there a change which invariably happens when tuberculin enters an area infected by lupus?

We answer with reserve, for our experience is limited, and purely clinical, that such a change seems to happen: this is absorption of this fluid and cells collected around the tubercles in the lupus patch.

Clinically, we note the patch to pale down more and more, so that what was swollen, reddened and opaque becomes flat, pale and translucent, revealing one or two injected vessels. In seeking to explain this absorption effect, we are tempted to infer that the liquid and cells are removed from the tissues on to the free surface of the skin, thus putting the infected skin at rest, and allowing the hyperæmia to diminish. But we have observed this absorption to happen when no exudation has passed from the tissues on to the free surface, and even when apparently there has been none into the tissues themselves, or sometimes more matter is absorbed than passes on to this surface of the skin. Hence the absorption is not caused by surface exudation.

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* Our way of administering the tuberculin is the old one of Dr. Koch's and his helpers, injecting gradually increasing doses at intervals of two or three days. We have used a 1 per cent. solution in doses from 0·001–0·01 or 0·015. Lately we have started on Mr. Watson Cheyne's suggestion to inject small doses once or twice daily.

There are some facts about this absorption which we must note down before considering its causation :—

(1.) The absorption depends neither on the pyrexia nor on the increased hyperæmia ; we have seen it occur when neither of these conditions were present.

(2.) The quantity of matter absorbed diminishes as the physiological state of tolerance is approached.

(3.) The tubercles are not absorbed. The superficial tubercles may be swept out with the surface exudation. If the absorption depended on mere chemical action of tuberculin on the effused cells, it is difficult to explain why this action should diminish (cells and tuberculin being present) as the state of tolerance is approached.

Probably it is connected with nerve stimulation, but *how* is beyond our cognizance and present limit of inquiry. We have mentioned that the effused cells and fluids are removed ; but are any of the fixed tissues absorbed? Dr. Unna maintains that the pathological fibrous tissue of lupus gradually disappears under the treatment of tuberculin.* We have seen one case—an elderly man with lupus on the back of the neck—where the induration was diminished to a notable extent. Another now under our observation has a lupus-scarred cheek with everted lower eyelid, still everted after two months of regular inoculations. We reserve this important effect—or alleged effect—of lupus for future consideration.

We think we have been able to detect an action of tuberculin which hitherto has escaped notice, so far as we are aware. Our attention was directed to it by the change in a granulating wound excited by tuberculin. The granulations in this wound were of a bright red colour, and on a level with the surrounding skin, but the epidermis ended at the margin of the granulation area. There was a notable change in the whole appearance of the ulcer after the second injection.† The granulations were altered in colour to a dark red, almost leaden hue, and had shrunk down from the epidermis, which projected eaves-like over the margin of the area. There were two changes here—contraction of the blood-vessels, and a change of colour, both, as we are tempted to believe, due to the same cause. The change in colour from bright red to dark red, or purple, we attribute to the reduction of the hæmoglobin; and this we conceive to have happened by a reducing or deoxydizing action of the albuminoids of tubereulin. Slight as is the evidence of this statement, it receives support from comparison with the action of well-known deoyxdizing agents, such as resorcin, on naked granulations.*

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* *Monatshefte für Prak. Derm.*, Vol. xii. No. 8.

† Dose 0·0015 gramme. Max. temp. 104·8.

Assuming, for the present, the reducing action of tuberculin, we venture to suggest another parallel action of lupus. and tuberculin—namely, that the peculiar purple tint of lupus is the effect of a reduction of the hæmoglobin of the red corpuscles by the natural tuberculin in the tissues infected by lupus.

Want of knowledge hinders us from fully discussing these finer relations of tuberculin to lupus. We have mentioned them as suggestions rather than as established facts, in the certain belief that Koch's discovery is not an *ignis fatuus*, but the opening of new ways, leading to new discoveries.

We conclude that the curative action of tuberculin is partial, removing cells and fluids which burden the tissues, thus putting the skin into a healthier condition. The tubercles are not removed, except accidentally in the exudation. Left to itself, the disease must return to its former conditions, the effusion of cells and fluid products collects again, the tubercles disseminate and degenerate—in a word, relapse occurs. This has been our constant experience, except in those instances (two in number) where a local remedy† of known value was applied methodically when the tuberculin was stopped. In these instances, instead of relapse, there has been steady improvement with diminution and even disappearance of tubercles.

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* We have seen darkening in colour and contraction of the granulations in a sluggish open wound after twenty-four or forty-eight hours contact with a resorcin ointment or plaster. So far back as 1883 the different chemical relations of granulation tissue and superficial epithelial tissues in the healing of wounds was pointed out by Unna in a paper of classical importance to dermatologists. We refer the reader to the *Berlin Klin. Wochenschrift*, No. 35, 1883, for full details.

† Dr. Brooke's ointment. These cases will be reported when the cure or improvement may be supposed reasonably to be permanent.

CLINICAL NOTES.

A CASE OF DIFFUSE OR SYMMETRICAL SCLERODERMIA.

BY THOMAS BRITTON, M.D.,

Physician to Harrogate Bath Hospital.

M. L., married, æt. 60 years, dressmaker. Family history good. Has always had good health up to June last, when she began to suffer from diarrhœa, followed by enteritis. She was ill one month, when she noticed that the skin at the back and sides of the neck down to the upper border of the collar bones was tense and hard; this was shortly followed by a hard, tense swelling over the lower part of back, from the waist down to the last lumbar vetebra, where it abruptly terminated in a large semicircular depression, in which the skin was normal to sight and touch. There was a one-inch band of the hard skin on each buttock, down to the junction with the thighs. These were completely surrounded by hard, tense, darkish-coloured skin, mottled in appearance by blood vessels on the surface, and which could not be pinched up. This terminated also in a semicircular depression of normal skin two inches above the patella. It just looked as if the thighs were covered with leather, out of which a hole had been punched for the knees. The flexor tendons were slightly contracted, and the popliteal spaces were hard and tense. There were also slight strips of diseased skin of a glazed white colour down the inside of each arm, the centre of each forearm, and the front of each shin. The symmetrical character of the patches was perfect in every respect. No pain, only an uncomfortable feeling of stiffness, especially round the thighs, was complained of. A more perfect example of hidebound skin it would be impossible to find. The general health was good, the secretions normal.

This rare disease is described as of two kinds, viz.: circumscribed (commonly called morphœa) and diffuse, the former generally following the course of the nerves. This case was undoubted "Diffuse."

Dr. Crocker describes the pathology thus: "The pathology appears to be that, owing to some defect in innervation, an exudation occurs round the vessels, narrowing the lumen, obstructing therefore the bloodflow and leading to thrombosis, and sometimes to a real rupture and effusion. Each atrophic spot seen near a growing patch is the base of a cone from which the blood supply is cut off. The atrophic spot or patch thickens by the fibrillation of the effused cells." There is supposed to be a relation between this disease and rheumatism, but in this case there was no history of anything of the kind. There was no history of cold or privation, which are both supposed to be frequent factors in producing the disease, but in my opinion it was caused by disordered innervation, the result of a serious inflammatory attack in a case where the system had not been used to be thrown out of gear, and especially to pain. Unfortunately the woman left the hospital to go to the deathbed of a relative, and I have since lost sight of her.

CURRENT LITERATURE.

CULTIVATION OF THE LEPROSY BACILLUS IN BLISTER SERUM.

Dr. Beaven Rake and Dr. G. A. Buckmaster, working in the Almora Leper Asylum and in the new laboratory built by the Indian Government at Simla for the use of the Leprosy Commission, have succeeded in cultivating the leprosy bacillus in blister serum. Culture experiments were first begun on March 31st, but these were without result. On April 14th a blister was raised over a tubercle on the face of a leper at Almora, and another over normal skin on the back of the same leper. Specimens of fluid from these blisters were taken in a sterilized capillary tube, and allowed to mix. Previous examination of blister fluid over a tubercle in this patient had shown leprosy bacilli. The capillary tube was kept at a constant temperature of 98° F., and was taken to Simla, where it was examined on May 2nd. There was then some turbidity of the liquid, and fuchsin showed some brightly stained leprosy bacilli. On May 14th a tube of bouillon was inoculated from this tube of serum, and on May 26th there was an undoubted growth of leprosy bacilli on the surface of the bouillon. From this culture secondary growths of leprosy bacilli were obtained on bouillon, agar and gelatine. Another capillary tube of blister fluid prepared in the same way from another leper gave similar results.

NOTES ON CERTAIN PUSTULAR DISEASES ATTENDED WITH ATROPHY. Dr. E. B. Bronson, New York. (*Journ. Cut. & Genito-Urin. Diseases*, Vol. ix. April 1891.)

Microscopic Examination in Dr. Bronson's Case of Acne Varioliformis of the Extremities. Dr. J. A. Fordyce (loc. cit.)

In this paper Prof. Bronson notes and discusses four cases of Pustular Disease attended with atrophy, and furnishes a very acceptable contribution on a subject that is awaiting further elucidation.

In Case I. the diagnosis *Acne varioliformis* was finally arrived at as much by exclusion as by strictly affirmative features. The man was a piano finisher, a native of Germany, aged twenty, not robust, but on the whole with a good personal and family history, and well nourished. The eruption was abundant, and consisted of discrete, grouped efflorescences, partly papular, partly pustular, and partly crusted, and varying in size from miliary to lenticular. The eruption was distributed symmetrically on the backs of the hands and wrists, thence curved around the ulnar aspects of the forearms, extending up over the elbows and on to the backs of the upper arms as far as the junction of the lower with the middle third of the humerus. On the lower extremities the eruption occupied the dorsal surfaces of the feet, to a slight extent the toes, and the entire circumference of the ankles; it extended up the back of the legs, and a few coloured over the front of the knees and just above on the thighs. There was a tendency for the spots to group, they were papular, miliary, and deep-seated at first, afterwards growing to lenticular and becoming vesiculo-pustular. With the increase of the inflammation an areola developed. The colour was a brownish-red, looking not unlike a lenticular papular syphilide. A majority of the spots were seen to be covered with a thin, depressed dark or blackish crust, which left behind round, depressed, and more or less pitted cicatrices, dark red, pigmented or white according to their age. The eruption seemed to cause the patient no discomfort. When seen by Dr. Bronson the disease had existed two or three months, and the treatment, viz.: the application twice daily of a lotion consisting of 0·4 per cent. solution of bichloride of mercury in a saturated alcoholic solution of boracic acid, and based on the assumption that the disease was parasitic, effected a cure apparently in a few weeks. The nature and cause of the malady was not revealed by the careful microscopic examination of papules in different stages of evolution. Dr. Fordyce concluded that the lesion began in several independent foci as a deep-seated small-cell infiltration about the coil glands situated beneath the hair-follicles. These primary foci subsequently coalesce, producing a generalized infiltration of the derma with a tendency to central degeneration. The overlying epidermis is then disintegrated and lifted, and finally the whole forms a necrotic mass, which is separated from the adjoining tissues by a sharp line of demarcation. The formation of pus was not constant and due, it was thought, to secondary infection by pus cocci. Drs. Bronson and Fordyce discuss respectively the clinical and histological features of the pustular cases recorded by Grunewald, Boeck, Pick, and Leloir and Vidal. In certain typical cases, Dr. Bronson says, the diagnosis of the Acne frontalis of Hebra and Acne varioliformis of Kaposi is not difficult, but, he adds, "what divergences from this well-known type are yet consistent with the diagnosis it is hard to determine, and will be till better criteria of the disease are known than we at présent possess."

The case here recorded did not conform for instance in location, in the small amount of pustulation, and in its disposition to heal, but it agreed in the essential features of primary deep-seated papulation, the early formation of depressed, dry (or "mummified") closely-adherent crusts, and resulting atrophy.

CASE II., called provisionally *Acne ulcerans*, occurred in a dyspeptic married woman of delicate build and low vitality. From fourteen years of aga she suffered from eruptions on the face, but from 1882, when aged forty, till the present year, there was a frequent evolution, accompanied by pricking sensations, of very scanty disseminated acuminated red little papules. There were no comedones. They pustulated very slightly, and after lasting some weeks disappeared, leaving superficial depressed scars. The chief peculiarity of the case was the occasional formation of serpiginous erosions or superficial ulcerations, which were started by scratching, and persisted for weeks or months, but yielded usually to caustic applications. The forehead, chin, cheeks, the neck, especially the nape, and even part of the scalp, were thus affected.

The next two cases are given by Dr. Bronson under the title *Folliculitis decalvans*, and the author introduces the subject by a short review of Quinquaud's *Folliculite épilante ou décalvante des régions velues;* of Brocq's four clinical varieties of *folliculites et des périfolliculites décalvantes*, viz.: (1) *pseudo-pelade*, (2) a form corresponding to the affection described by Quinquaud, (3) *Sycosis lupoïde* or keloidal sycosis, and (4) a form regarded as identical with Kaposi's *dermatitis papillaris capillitii;* and of Besnier's *alopécie cicatricielle innomineé*, which appears to be allied to Quinquaud's affection.

CASE III. was a native of Ireland, a labourer, who came under observation when the complaint had existed for ten years. The disease commenced on the vertex, and when seen by Dr. Bronson the entire crown of the head was covered by dirty, moist granular crusts, and the general appearance was that of an impetiginous eczema, excepting for the numerous patches of alopecia. On cleansing the surface there was some evidence of eczema and a striking abundance of cicatricial tissue, amongst which were to be seen irregular tufts or patches of hair and numerous small pustules. The whole appearance was not unlike a long-continued favus, but no evidence of this disease after three months was discovered. The pustules were for the most part superficial, though many were seated on perifollicular conical miliary papules. The pustules were distributed both irregularly over the general surface, and apparently more numerously at the periphery of the atrophic patches. The patient was not cured when he left the hospital.

CASE IV., a lady of fifty years, more closely resembled Quinquaud's. The duration was three years. Successive crops of small, slightly-elevated pustules, arranged in closely-aggregated groups, occurred at the periphery of a spot of alopecia on the vertex. As the pustules dried up the hairs dropped out, leaving a dusky red lenticular papule, when subsided in turn, and a little depressed atrophic spot resulted. Twice the affection relapsed after apparent cure by bichloride of mercury lotion.

In conclusion, we must not omit to notice that Cases I. and III. and the histological researches are beautifully illustrated, which adds greatly to the value of the papers. The Editors and Publishers of the Journal are certainly to be warmly congratulated on their successful and liberal efforts in illustration.

T. C. F.

HEREDITARY TRANSMISSION OF SYPHILIS. JONATHAN HUTCHINSON. (*Archives of Surgery*, *April* 1891.)

Three cases of great interest in reference to our knowledge of inherited syphilis are reported. The first patient had suffered for many months from glandular abscesses in the right side of her neck, with extensive ulceration and considerable thickening of the parts. So closely did the appearances resemble struma that syphilis was not suspected. About four months after attending this patient a second member of the same family was brought to Mr. Hutchinson, a girl of twelve, the eldest daughter of the first patient. She presented great over-development of the frontal eminences, but no peculiarities of teeth, and was well-grown. She suffered, however, from phagedænic ulceration of her soft palate, and the conditions led Mr. Hutchinson to believe she was really the subject of inherited syphilis. Guided by the insight obtained from this case, he treated the mother for syphilis with most satisfactory results, her case having previously resisted all other kinds of treatment

Towards the end of the treatment of her eldest daughter, the mother brought a younger daughter, who was rapidly becoming deaf. Both ears had been equally affected, and in two to three months she had become almost totally deaf. She, like her eldest sister, had been apparently quite healthy during infancy. She had not yet cut her upper incisor teeth. The only peculiarity of physiognomy was the prominence of her frontal eminences, " like budding horns."

From a careful inquiry into the family history the following important conclusions are drawn :—

1st. That a mother may receive syphilis by fœtal contamination and never show any symptoms until the formation of a glandular gumma thirteen years later.

2nd. That a mother the subject of syphilis by conception, and having had no treatment, may transmit syphilis to an infant born seven years after the one which infected her.

3rd. That a succession of children really the subjects of taint, as definitely proved in two of them, may pass through infancy without the slightest manifestation of it.

4th. That the physiognomy of inherited syphilis and the notched teeth may be wholly absent.

5th. That considerable value for purposes of diagnosis attaches to the prominences of the frontal eminences.

6th. That the conditions of phagedænic destruction of the soft palate in young people, and of symmetrical deafness, are both of them really consequences of inherited taint, and may be trusted as, in themselves, constituting proof of it.

ALFRED EDDOWES.

ERUPTIONS DUE TO SALICYLATE OF MERCURY. Dr. DAVID B. FLITNER. (*Voenno-Meditzinsky Jürnal*, August, 1890, p. 869.)

At a meeting of the Russian Syphilidological and Dermatological Society, Dr. Flitner of St. Petersburg communicated five cases, referring to syphilitic women in whom intragluteal injections of Salicylate of mercury (1½ grain every fourth day) caused more or less intense cutaneous lesions. Drug eruptions of late having having attracted considerable attention, the following condensed account may be of interest:—In one of the patients, aged 28, the first injection was rapidly followed by rigor and fever, with a bright confluent erythema over the flexor aspect of the upper limbs, and the whole circumference of the lower. On the next day the chest and epigastrium became involved, while over the whole affected surface there cropped out numberless vesicles, closely resembling miliaria crystallina. On the fourth day, the erythema assumed everywhere the shape of "almost regular geometrical figures," such as aces of diamonds (on the forearms), oblique crosses (on the chest), &c. On the fifth, there appeared erythematous patches on the face, abdomen, back and buttocks, while the older rash became livid, and here and there brownish, the vesicles at the same time disappearing. On the eighth day, the eruption began to subside; on the twelfth, a furfuraceous desquamation set in, being especially pronounced on the limbs.

In another woman, aged 18, on the day following the first injection, the back, chest and abdomen were found studded with dark, dusky, and bluish-brown, circular and rhomboid spots, varying in size from a small pea to a large almond. A few days after the second injection, there supervened rigor and fever, headache and giddiness, accompanied by the eruption of rose and red lenticular papules over the upper and right lower extremities, most of the patches presenting on their summits two or three vesicles with a serous discharge. In the course of the subsequent eight days, fresh papules continued to come out (mainly on the right limbs), while the old ones gradually disappeared, leaving no trace. The primary pigmentary rash left some discolouration.

In a third patient, aged 26, on the day following the second injection, there was observed bright erythema (with minute vesicles) on the back, which was followed by the appearance of slightly itching, sharply circumscribed, particularly bright red patches on the limbs and buttocks. The rash disappeared on the fifteenth day.

In a fourth woman, 22 years old, on the following day after the first injection the whole body became covered with regular oval erythematous patches, the exanthem lasting only two or three days. No rash occurred after subsequent injections.

In the fifth patient, aged 20, the first injection was similarly followed by the development of erythematous patches, which, however, were limited to the lower half of the back, inner surface of the forearms, and face, the skin returning to normal condition in about six days.

In the course of discussion, Dr. Usass said that he had also seen several cases of erythema following mercurial injections. In one of his patients, the whole body turned red within six days, the integument showing areas of serous infiltration. In a fortnight a profuse desquamation ensued, the cuticle being shed in large sheets. The rash was accompanied by high fever (up to 40° C.), the patient's general state remaining rather grave for some time. Ultimately (in about four weeks), however, he made good recovery.

Dr. Stepanoff similarly adduced two cases of mercurial erythema, the rash lasting in one for two months, in the other a fortnight. In the former it disappeared spontaneously after discontinuing the treatment; in the latter it was cured by iodide of potassium.

Dr. Telistïakoff related a case of mercurial exanthem resembling erythema exudativum multiforme, and chiefly involving the forearms, chest, abdomen, and lower limbs. It reappeared after each of the first three injections of the salicylate, lasting each time for about two and a half days. Subsequent injections did not produce any eruption. VALERIUS IDELSON (Berne).

ABSOLUTE ALCOHOL IN ERYSIPELAS. Dr. Sztembarth. (*Vratch*, No. 49, 1890, p. 1123.)

Dr. Sztembarth (pron. Shtembart, a Polish name), of Cracow, relates twelve cases of erysipelas which he treated by painting the diseased area and adjacent apparently sound zone with absolute alcohol, the application (by means of a cotton-wool swab) being repeated every two or three hours. Of the twelve cases, eleven were cured in two or three days; the twelfth (a severe case of puerperal erysipelas, involving the lower extremities and hypogastric region), in about ten. The author emphasizes the fact that the method, while being highly efficacious, is simple, easy, almost painless, and generally free from any disagreable accessory effects. [The alcohol treatment of erysipelas has been also recommended by Drs. Behrend (The British Journal of Dermatology, May, 1889, p. 242), Iürkevitch (*ibid.*, June, 1890, p. 192), and Gëorgïevsky (*ibid.*, August, p. 262).—*Rep.*]

Valerius Idelson (Berne).

ON LEUCODERMA SYPHILITICUM. Dr. Nikolai I. Fiveisky (*a*) *Proceedings of the Fourth General Meeting of Russian Medical Men*, No. 10, 1891, p. 358; (*b*) *Meditzinskoië Obozrenïë*, No. 2, 1891, p. 167; and (*c*) *Vratch*, No. 7, 1891, p. 207.

Following Professor A. I. Pospeloff's suggestion, Dr. Fiveisky, of Moscow, has carried out an extensive series of elaborate clinical observations, mainly on prostitutes, inmates of the Mïasnitzky Syphilitic Hospital, in order to study the clinical history and diagnostic value of "*leucoderma syphiliticum.*" The outcome of the author's important and exhaustive research may be summed up somewhat as follows:—

1. Leucoderma syphiliticum, or "primary pigmentary syphilide," constitutes a very common cutaneous manifestation during the condylomatous stage of syphilis. Most frequently it is localized on the lateral and posterior surfaces of the neck, but sometimes, besides those classical regions, it may also affect the lateral aspects of the chest, the epigastric region, and, though exceedingly rarely, the thighs. It never attacks either the hairy scalp, or face, the inner surface of the mamma, the buttocks, forearms, hands, legs, or feet.

2. There exist three distinct varieties of the exanthem, which may be termed *leucoderma marmoraceum*, *l. maculosum*, and *l. retiforme* ("lace-like form").

3. In 40 per cent. of cases the rash makes its appearance during the third month after the first syphilitic symptoms [concerning which point—as well as some others—Dr. Fiveisky differs from Dr. Ehrmann: *vide* the *British Journal of Dermatology*, August, 1889, p. 346.—*Reporter*], in 20 per cent., during the fourth; in 20 per cent. during the fifth; and in the remaining 20 per cent., in the course of the second half of the first year.

4. Occasionally it may be observed simultaneously with gummatous manifestations.

5. In women, leucoderma occurs more frequently than in men; thus, it is observed in from 45 to 49 per cent. of all female condylomatous cases, and only in 28 per cent. of male ones. [Professor Fournier found the rash in 50 per cent. of female patients, and in 35 per cent. of male.—*Reporter*].

THE BAUME (OR ALCOOLAT) DE FIORAVENTI

is so frequently found in the prescriptions of French writers on skin diseases hat we append the formula for its preparation, as a matter of both interest and curiosity. The list of its seventeen ingredients and their quantities is as follows:—

Térébenthine du mélèze (larch)	500
Résine élémi	100
Résine tacamahaca	100
Succin (amber)	100
Styrax liquide	100
Gomme-résine galbanum	100
Myrrhe	100
Aloès	50
Baies de laurier	100
Galanga (Chinese galangal root)	50
Zédoaire (curcuma zedoaria root)	50
Gingembre	50
Cannelle (cinnamon)	50
Girofle (clove)	50
Muscade (nutmeg)	50
Feuilles de dictame de Crète (a species of dictamnus fraxinella)	50
Alcool à 80°	3000

F. s. a.

The resulting compound is evidently one which the practical experience of our French colleagues has proved to be of great utility, and it may be readily supposed that it is easier to continue using it in its present complicated state than to attempt to weed out its unessential constituents.

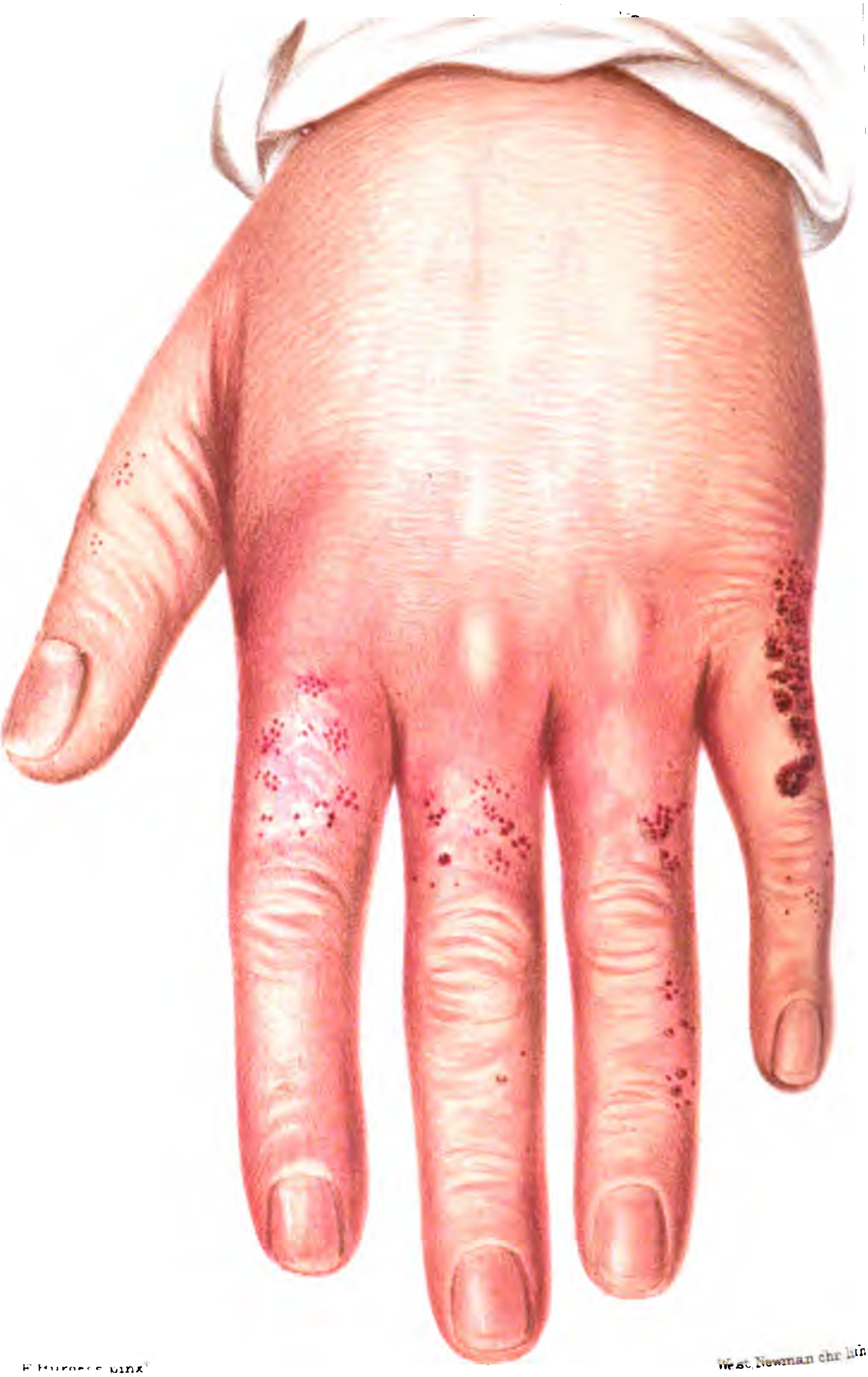
TREATMENT OF URTICARIA.

Dr. Quinquaud says that in the intermittent forms, sulphate of quinine in doses of 5-6 gr.—10 gr. may act, but it is often insufficient alone, and liq. arsenicalis must be added in daily doses of 10—15 minims. In the chronic forms alkalies, arsenic and naphthol ought to be given internally. Neither baths nor cold lotions should be employed, and hydropathy especially should be interdicted, as it frequently prolongs the trouble. It is better to envelope the parts in wadding to protect them from the air (Jacquet), and Alibert noticed that the patients were often easier when kept in bed and wrapped in wool. To ease the pruritus the following lotions may be used:—

	℞	Aq. Lauro-cerasi		ʒij
		Chloralis hydratis		180 gr.
		Aquæ	ad	ʒ
or	℞	Etheris		℥j
		Aq. calidæ		℥ij
or	℞	Sp. Camphoræ		℥j
		Aq Chloroformi	ad	ʒx

Carbolic acid solutions, 1 per cent. to 2 per cent, or corrosive sublimate solution, 1 per cent., are also of service.

In the case of nervous patients 1-240 gr. of atropine may be administered internally, and to cope with actual outbreaks 1-120 gr. of aconitine.—(*Journal de Maladies cutanées*, October, 1890.)



F. Burgess pinx^t

West, Newman chr. lith.

Dr Pringle's case of
ANGIOKERATOMA.

THE BRITISH
JOURNAL OF DERMATOLOGY.

AUGUST, 1891.

ON ANGIOKERATOMA.

BY J. J. PRINGLE, M.B., F.R.C.P.,

Assistant Physician to, and Physician in charge of the Department for Diseases of the Skin at the Middlesex Hospital.

EVERY definite disease, like every individual however insignificant, is entitled to a specific name for purposes of description, identification and recognition. The rare affection of the skin to which attention will be drawn in the following pages, has recently been denominated Angiokeratoma. As the name, although it conveys no idea of its clinical characters, is fully descriptive of its pathological anatomy, it may be considered as a suitable one on the whole, and is, therefore, here retained, the more especially as no other specific designation has been previously assigned to the morbid condition, and as the unnecessary multiplication of names ought to be studiously avoided. I purpose (1) to give the clinical history and notes of the two cases of Angiokeratoma which have come under my personal observation; (2) to furnish a brief account of the cases previously observed or published, as far as I have been able to ascertain; (3) to describe the morbid anatomy of the condition; (4) to discuss its pathogenesis and pathological relations, and, (5) to refer to its treatment.

CASE I.—Miss A. B., aged 24 years, forewoman in a well-known draper's establishment, first attended my clinic at the Middlesex Hospital on July 18, 1889 (No. in O.P. Register 7207, Special Case Paper 141). She complained of disfiguring spots on her hands and feet, those in the former situation having evoked criticism from her fellow-workers, and thereby having caused her annoyance. She was a fine-looking, well-nourished girl, of bright intelligence and remarkable self-possession and common sense. Her hair and irides were dark, her complexion clear and rather florid, her muscles firm. Her general health was said to be excellent, although occasionally she was liable to headache. She stated that she was one of a family of five girls, her father and mother not being related to one another; the latter was subject to rather severe rheumatism, of which she herself had had occasional twinges in the shoulders. Three of her sisters, who have all very fair complexions and hair, enjoy perfect health, but the other one, who, like herself, has dark hair, used to suffer severely from chilblains, and now presents spots on the hands and feet similar to hers. The patient was born in Cornwall; up to the age of fifteen she was very subject to chilblains on both hands and feet. At that age, when a crop of chilblains was subsiding, she noticed dark spots on the hands and feet. She continued to suffer, although less severely, from chilblains every winter till she was twenty years of age, each attack being followed by fresh dark spots, none of the previously existing ones having ever disappeared. In 1885 she came to her present place of business in London and has never had any sign of chilblains since, although a few fresh spots have shown themselves, independently, she thought, of exposure to cold or other ascertainable existing cause. She had, however, noticed no new lesions in the previous year. She attributed her excellent general health to her fondness for active physical exercise, being devoted to gymnastics, walking and swimming. Her digestive and menstrual functions were normal; her urine contained no albumen or other abnormal constituent. Her cardiac physical signs were healthy, and there were no indications of obstruction to venous return, or of vascular degenerative changes. She presented no evidence of ill-balanced peripheral circulation, such as rosacea, blushing, or flushing, heat, swelling, or hyperidrosis of the extremities.

The condition she exhibited on her hands and feet was perfectly unfamiliar to me. The accompanying coloured plate, from a water-colour drawing by Mr. Burgess, illustrates the appearance of the left hand, which was somewhat more severely affected than the right, although on the whole the lesions were distributed with notable symmetry on the two sides. All the lesions were situated upon the dorsal aspect of the hands, being generally most abundant over the proximal phalanges of the thumbs and fingers. None were present above the level of the metacarpo-phalangeal articulation, except along the ulnar side of both hands, where they extended for about half an inch above that level, and presented special characters, afterwards to be described. The simplest eruptive elements consisted of tiny, almost imperceptible, pink points, which did not, however, disappear on pressure. These were too small to admit of illustration. On the *left hand* (see plate) there were about half a dozen spots over the proximal phalanx of the thumb, and they were small, averaging from the size of a pin's point to a pin's head. They were of darker colour than the pink specks referred to, and situated in the true skin; on pressure, or on stretching the skin, they lost a good deal of their colour at the periphery, but a central, deep red point, obviously a telangiectasis of a capillary loop, remained in all. Similar lesions were present in much greater abundance over the proximal phalanges of the index and middle fingers, and there were a few over the middle phalanx of the ring-finger. Over the proximal phalanx of that finger a new feature of the eruption became perceptible, inasmuch as the little telangiectases were here and there clustered together in small irregularly outlined groups, which slightly, but incontestably, projected above the general skin level. This aggregation, and the prominence of the composite lesions thus formed, were even more noticeable on the ring-finger, the two distal phalanges of which were considerably involved, but the acme of severity of the condition was present over both proximal phalanges of the little finger and the distal fourth of the fifth metacarpal bone. Here the composite growths attained, in some instances, nearly to the size of a split-pea, and projected about a line above the general skin level. They were rough on the surface, hard to the touch, and warty-looking, owing to great thickening of the epidermis over them, which deadened their colour as compared with that of the simpler lesions. It was, however, easy to analyze them by pressure, which deprived them of their dull purplish-brown erythematous tint, and revealed, even through the thickened epidermis, the existence of the numerous adjacent telangiectases which were here larger than in any other part of the hand.

As has already been stated, the condition of the *right hand* was very similar although less severe, the symmetry of the lesions on the two sides being very remarkable. The only exception to this statement was constituted by the condition of the right middle finger, where no telangiectases whatever were present. There was also one persistent dilated capillary loop, the size of a pin's point, over the head of the right ulna, which had been noticed and remained unaltered for about two years. When pricked with a fine needle, the little telangiectases bled very freely, and the hæmorrhage was arrested with considerable difficulty. No fluid, except blood, issued even from the most warty of the growths. The nails were healthy, although disfigured by biting. It may be added that the patient thought the spots looked darker and more disfiguring in cold weather, that their colour was not appreciably altered by a tight ligature round the arm, that there were no hæmorrhagic stigmata present, and that the lesions gave rise to absolutely no subjective symptoms.

The condition of the feet was exactly parallel to, but more severe, than that of the hands.* On both sides there were scattered telangiectases over the dorsal surface of the first metatarsal bone, but not over the phalanges of the big toe. Over both second toes these were grouped together to form slightly prominent, little tumours, most abundant over the proximal, but also present over both distal phalanges. On both sides the maximum of intensity was attained over the dorsum, and on the inner side of the middle third of the middle toe, where a large warty-looking growth the size of a big bean was present, which, from pressure, had assumed a somewhat pyramidal shape. The epidermis over that on the left side was so thickened that the colour of the growth was a dull brownish-white, and so opaque that it was with some difficulty that the subjacent dilated blood-vessels could be identified through it. A few telangiectases and slightly warty growths were present over the fourth and fifth toes on both sides, and one or two over the outer side of the last metatarsal bones. The only lesion forming part of the disease present on a flexor surface was found beneath the proximal phalanx of the third toe on the right side, where there was an acuminate, very warty growth which gave rise to some pain in walking, and demanded extremely close scrutiny before the telangiectases at its base could be satisfactorily determined. After careful examination, however, no doubt remained as to its nature being identical with that of the other lesions.

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* It will be illustrated by a chromolithograph in next number of this Journal.

The case was shown at the October meeting of the Dermatological Society as one of "Telangiectases of hands and feet with warty growths," and excited much interest and a lively discussion. No one present had seen a similar condition with the exception of Dr. Sangster, who, with great kindness, sent me the case, who had been under his care in private.

CASE II.—Miss C. D., aged 21, consulted me in March, 1890. The following notes are from my private case-book.

She stated that her previous health had been generally good, although her mother said that 'she had never been really strong.' She had suffered from measles and German measles in childhood, and at the age of ten had severe shingles on the right leg. She had been liable to bad chilblains ever since she could remember; they used to begin about October and last till Easter, but of late years had not been nearly so severe, the improvement being much more marked in the feet than in the hands. The feet were at their worst about twelve years ago, when she was living in a very exposed part of North London, but the hands at their worst eight years ago, when, after an application of *papier Fayard*, she had to carry the arm in a sling for nearly a month. Persistent red spots were noted on the hands after the subsidence of an attack of chilblains twelve years ago, and she thought that the condition had been greatly aggravated, and a large number of fresh spots 'brought out,' by the application of tincture of iodine eight years ago. No fresh crops of spots had been noticed in the last five years, but all the old ones persisted.

The patient was a rather delicate-looking and nervous girl; she was not obviously anæmic, but her hands were cold, blue, mottled and slightly puffy, with some desquamation about the knuckles, the result of a subsiding attack of chilblains. The feet were also cold, but exhibited none of the lesions to be described on the hands. (It must be admitted that my examination of them was distasteful to the patient, and therefore rather cursory.) On both hands were very numerous punctate telangiectases, some as large as a pin's head, but the majority averaging the size of a pin's point. They were more numerous on the left than on the right side, but their arrangement and distribution showed, on the whole, remarkable symmetry. They were confined to the dorsal surface of the fingers and thumbs, but on both sides the middle finger was but slightly affected and the index was exempt. They were most abundant over the proximal phalanges of the ring and little fingers and towards the ulnar side of the latter. In both of these situations the little telangiectases were closely grouped together in places to form irregularly outlined, bright pink, conglomerate lesions the size of half a split-pea or larger, which were slightly raised, owing to obvious involvement of tissue between and above the dilated blood-vessels; on pressure the general inter-telangiectatic redness disappeared, but the essential dark red points remained unaltered. Over a few of the larger growths only was there any very obvious thickening of epidermis, the warty appearance thereby produced being much less marked than in the case of Miss A. B. The nails of the index and little fingers were thinned and brittle with many longitudinal striations. On the centre of the helix of the right ear was a composite telangiectatic tumour the size of a pin's head, more warty in appearance than any on the hands; the ears had always been the seat of severe chilblains. The patient had no cardiac disease. I regret that I have had no further opportunity of studying the case.

The only published cases of this condition, as far as I have been able to ascertain, are by Colcott Fox and Mibelli. As both observations are somewhat inaccessible to many readers I shall give rather full details of them.

Colcott Fox's first cases appeared in the Report of the Department for Diseases of the Skin at the Westminster Hospital for 1886.* His account of them runs as follows:—

CASE III.—"Rosa B., æt. 9½, was a very phthisical-looking, pallid thin girl, who had recently suffered from pleurisy. The backs of the hands and feet, and to some extent their palmar and plantar aspects, were somewhat puffy and swollen and covered with congestive, more or less confluent, dull-coloured venous blotches, disappearing on pressure, and by a great number of little purple elevations with semi-transparent summits simulating vesicles and tiny plane warts, the size of pins' heads. The hands strongly reminded one of the condition seen where chilblains are present in great quantity, and, indeed, the girl did suffer badly in this way in winter. The condition was chronic and had lasted from early infancy. It was not Raynaud's disease and not, I think, a nævus. The little warty growths were very similar to those occurring in a disease known to English dermatologists and described by Mr. Hutchinson as lupus lymphaticus. The elbows and knees and adjoining portions of the forearms and legs on their extensor aspects were the seat of a red papular eruption, covered with a slight amount of scale somewhat like psoriasis, but of small pattern. In addition there were scantily disseminated up the arms on both aspects a number of rather soft subcutaneous tumours, the size of a hazel-nut or rather larger, and only slightly prominent, which did not involve the skin, nor suppurate. The girl originally came to me in October, 1885, and I observed her for some time. She eventually died of tubercular phthisis, and I am informed (October 1887) that before her death the whole of these lesions *totally disappeared.* I was inclined to think that the lesions were due to lymphatic disorder."

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* Westm. Hosp. Reports, J. and A. Churchill, 1888, p. 125.

"Hearing that other members of the family were similarly affected I sought them out and gathered the following further information. There had been eight children in the family. The father was apparently healthy. The mother, a delicate pale woman, died three weeks after a confinement. One baby died of convulsions at six weeks old, and a second with a harelip at about three weeks. Louisa B., æt. 8, had two swollen fingers with some chilblains apparently, and the venous congestive patches on both aspects of the fingers and hands, and toes and feet. Also similar psoriasiform patches on the elbows, forearms, knees, and legs; but to a less degree than Rose. The stepmother assured me they suppurated sometimes, and I felt convinced the lesions were not really those of psoriasis. She was a comparatively healthy-looking child. John B., æt. 16, very pale and phthisical-looking, had lost the ring-finger of the left hand and the big toe of the right foot from bone disease. He had the same condition of the hands and feet as his sisters, but looking more like the cold cyanotic or venously congested extremities occasionally seen in families of children. Neither Louisa nor John had the warty growths. The elbows and knees were the sites of the psoriasiform eruption. There were scars left by abscesses just below, and more especially just above, the elbow joints on the flexor aspects and also in the neck. There were some subcutaneous chronic swellings on the limbs, but I wish particularly to enforce that I could not regard them as similar to the so-called "scrofulous gummata" of French authors. The face was most remarkable, for it was so altered by the number and close juxtaposition of these swellings, and by some duskiness from congestion, that he looked remarkably like a tuberculated leper. Whilst writing this report I find that all these tumours have completely disappeared from the face without leaving any trace. His ears were scarred as by lupus erythematosus, Raynaud's disease, or chilblains. Lily B., æt. 7, I did not see, but heard that with the exception of the lumps she was and is affected like the others. The other members of the family were healthy."

Colcott Fox describes two additional cases in the *Illustrated Medical News*, July 27, 1889, p. 73, under the title of "Cases of Lymphangiectasis of the Hands and Feet in Children," giving a chromolithograph and microscopic drawing, and I have his kind permission for stating that he now fully admits the inaccuracy of his description of the morbid anatomy of the disease there given and, therefore, of the name there attached to it.*

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* The error is referred to by Török in his article on lymphangioma circumscriptum in *Monatshefte für prakt. Derm.*, Band XV., No. 8, p. 118.

I again describe the cases in the author's own words :—

CASE IV.—"In June, 1888, my colleague Dr. Philpot sent me, at the Victoria Hospital for Children, a healthy girl, Alice A., æt. 12 years. I took the following notes of her condition: All the toes of the left foot and the fourth toe of the right foot are dotted over with little purple, elevated points, rough to the touch and like little warts in aspect. The purple points look like dilated capillary blood-vessels imbedded in warts. The eruption is thickly but unequally distributed over the dorsal surfaces and slightly on the sides of the toes. The second and third toes of the left foot have one or two on the under surfaces. The duration of the affection is one year, and the condition is similar to that seen in Rose B. The feet and toes do not swell, but she suffers from cold feet and chilblains in winter. She has a burning sensation in the toes of the left foot at night, and they ache when she walks. Here and there two or three purple warts may be seen confluent. There are also a few minute blotches like a tiny nævus araneus. On the backs of the fingers are a few plane warts. A careful study of this case convinced me that the lesions began as bright purple specks the size of a pin's point, and that as they enlarged to the size of a pin's head they became raised and imbedded in little warty growths."

"The last case came under my observation in the Skin Department of the Paddington Green Children's Hospital in 1888. Case V.—John A., æt. 9 years, a healthy boy, had noticed for one year the evolution of purple points and warts on his fingers, and his condition in July 1888 is represented in the coloured drawing forming the inset. One or two lesions were forming on the middle toe of the right foot. The boy's fingers were cold, livid, and much swollen, the wrist-pulse was weak, and he suffered severely from chilblains in winter. After careful observation for some months I came to the conclusion that tiny purple points formed first, and then these became elevated and surrounded by warty growths, the whole resembling superficially a crop of plane warts. They might be seen in all stages of evolution dotted over the back, sides, and to a less extent the palmar surfaces of the fingers, and confluing into irregular, roughened, warty, purplish masses."

(To be continued.)

ON PSOROSPERMS AND SKIN-DISEASES.

BY JONATHAN HUTCHINSON, JUNR.,

Assistant Surgeon to the London Hospital.

In former numbers of this Journal have appeared several notices of this subject, one which has attracted wide-spread interest amongst workers both in dermatology and general pathology. The theory that the same form of animal parasite could produce diseases differing so widely amongst themselves as "molluscum contagiosum," "Paget's disease," and "keratosis follicularis," to say nothing of the visceral maladies of which it is undoubtedly the cause, is so strange and so novel that no wonder can be felt at this interest.

The assertions of some that coccidia or psorosperms were to be found in epitheliomatous new-growths pointed to a possible solution of the absorbing question of the origin of cancer; and apart from pathological discussion, the proof of the parasitic nature of certain skin-diseases which have hitherto been complete mysteries (so far as their causation is concerned) might obviously be of much practical service. In the present paper it is proposed briefly to review the work which has been done on the subject, although the time has not arrived for dogmatic conclusions. It may be, however, accepted that in the three diseases mentioned above, certain peculiar bodies have been found by a large number of observers (alike in France, England, America, and Germany), bodies which resemble to some extent, one might say in many respects, the *coccidium oviforme* (Leuckart), the parasitic nature of which has long since been fully proved in animals, and occasionally also in man. But, whilst more than one writer has treated these points of resemblance as fully proving the identity of the two, the question is one of extreme difficulty. It is much to be regretted that so few of those who have written on it, have seen fit to publish careful drawings of the appearances they describe. By this omission, they have rendered it difficult for the reader to estimate the value of their observations, and for other workers to confirm or disprove them. The elaborate thesis of M. Wickham on Paget's Disease, the investigations of M. Borrel on Epitheliomata, and those of M. Malassez (*Archives de Med. expérimentale*), and Dr. Delépine (*Pathological Transactions*), on Psorospermosis in animals, have been accompanied by good illustrations. A short paper by the writer on Paget's Disease in the *Path. Soc. Trans.* for 1890, may also be mentioned as containing drawings of the supposed parasites. With regard to the rare disease known as "keratosis follicularis," the only drawing recently published is so crude as to be practically valueless.

The first suggestion, that the peculiar bodies observed amongst the epithelium of certain skin-lesions were possibly parasites of the order of Protozoa, originated with M. Malassez of Paris, who, according to his own account, was struck with the resemblance between some structures seen in epitheliomata and the coccidia of the rabbit's liver. This was in 1876, but M. Malassez published nothing on the subject for many years, as he was waiting for further proof. It should be noted that, prior to this, M. Lindemann had discovered in human hair Psorosperm-balls and Gregarines (*Bull. de la Soc. Impér. Moscou*, 1863, p. 425, and 1865, p. 282). Leuckart, than whom there is no higher authority on the subject, to a certain extent confirmed Lindemann's views, and reproduces a drawing of the structures alluded to in his classical work on the Parasites of Man (Edinburgh, 1886, p. 227). M. Malassez has made extensive investigations on the rabbit's parasites, and especially their behaviour to various re-agents, and his paper on the subject (*Archives de Med. expérimentale*, 1891), together with Delépine's and Leuckart's, constitute the most authoritative work that we possess at present. It is therefore a fact of no little importance that Malassez is firmly convinced of the parasitic nature of the bodies observed in keratosis follicularis, Paget's disease and certain cases of epithelioma. That they are absolutely identical with the *coccidium oviforme* of the rabbit's liver, neither M. Malassez nor M. Darier assert, and the many varieties of psorosperm which are known to exist must always be borne in mind by investigators. Further, any one who has examined the rabbit's parasite will have satisfied himself of the very different appearances which the latter may present at different stages of its life history.

Malassez believed that in acne varioliformis psorosperms were present, and, in addition to his observations on cutaneous epithelioma, he writes that in 1885 M. Albarran showed him specimens from a case of ulcerating epithelioma of the jaw, which were so conclusive that "there could be no possible doubt" of the existence of the parasites. In 1889 M. Darier brought him specimens from a skin-disease, the nature of which is not clearly stated, but which was probably keratosis follicularis, and here also apparent psorosperms were freely found. Then followed the publication of Darier's observations, and during the last twelve months the literature of the subject has grown most extensively. We will now glance at the chief contributions, dealing first with the disease known as:

I. *Keratosis Follicularis.*—This name is used as being a perfectly safe provisional one, to be employed until further researches make its parasitic nature more certain. Darier has not hesitated to apply the term "Psorospermose folliculaire végétante" (*Annales de Dermatologie et de Syphiligraphie,* July, 1889.) The disease is admittedly very rare, it appears to have been described by Erasmus Wilson under the title of "ichthyosis sebacea cornea" (*Diseases of the Skin,* 1887, p. 848), and by "some French writers as" "acné cornée."

Cases have been published in America by White, Bulkley and Morrow, in France by Besnier, Thibault, Fournier and Darier, in England by Erasmus Wilson and Brooke, whilst Boeck and a few Russian dermatologists have also contributed several records of cases. The fact that it is an extremely obstinate affection, resisting all known methods of treatment, has led to the same case being recorded by various observers; thus, there seems little doubt that the patient described in different articles by Lustgarten, Bulkley and White, was the same individual. ✗

From the various descriptions we learn that the chief feature of the disease consists in minute, dry, papular elevations, of a yellowish-brown colour, scattered over the face, scalp, and trunk (occasionally on the limbs also). The roughness produced by these elevations gives a nutmeg-grater sensation to the hand: sometimes patches are formed by the coalescence of the individual specks, which may even project so much as to form miniature horns. The small masses of epithelium may be easily lifted off, leaving slightly reddened depressions. Slow invasion of adjoining parts, extreme persistence and resistance to treatment characterize the disease, which may develop at various ages. That it is contagious might be suggested from the fact that Boeck observed it in a father and two sons, White in a man and his daughter ; but no proof exists. In White's cases (*Journal of Cutaneous and Genito-Urinary Diseases*, June, 1889, and January, 1890), the patients had lived wholly apart for many years. Dr. Bulkley's report (*New York Medical News*) is a detailed one, and refers to most of the hitherto recorded examples ; he is inclined to accept the parasitic nature of the bodies found in the epithelial plugs or projections, although the opponents of such a view would hold that peculiar forms of nuclear degeneration might be expected to occur in a disease characterized by the presence of accumulations of dry epithelium. M. Darier points out that bodies most resembling coccidia are to be found at the mouth of the follicle, low down in the epithelial mass, and therefore in the more living parts. Experiments in cultivation and inoculation have hitherto failed, and no positive evidence of any segmentation or development of the supposed parasitic bodies has been hitherto forthcoming.

It may be here mentioned that the same statement holds true of the bodies found in molluscum contagiosum and Paget's disease, but too much importance must not be attached to this. It is only quite recently that the leprosy bacillus has been successfully cultivated outside the body, and several similar examples might be given of diseases which are almost certainly parasitic. Nor would the successful transplantation of a particle of molluscum contagiosum, for instance, be conclusive as to its parasitic nature, any more than ordinary skin-grafting. It should, however, be noted that Delépine has lately published (*Path. Soc. Trans.* for 1891) researches into the life-history of coccidia from the rabbit, of great interest, and it is possible that, working on the same lines with the material from the suspected skin-diseases, the controversy may be finally settled. Dr. J. F. Bowen, an accomplished microscopist, found in specimens from Dr. White's second case of keratosis follicularis the same bodies that Darier had described, but failed to obtain cultures in agar-agar and other media, as well as in inoculations on animals.

Those who are interested in the literature of this rare disease, may be referred to Bulkley's valuable paper, but, in addition, one record of a case, by a Russian observer, may be here alluded to. N. P. Mansüroff reported to the Congress of Physicians held at Moscow in January, 1890, a case of inveterate skin-disease, (it had lasted nine years,) which he regarded as a mixed example of follicular psorospermosis and molluscum contagiosum.* It consisted in a dry papular eruption, with brownish infiltrations, and had steadily spread over the whole trunk. The patient was a male adult. From microscopic examination the author considered that in the epithelial areas affected were quantities of psorosperms, that they were the cause of the disease, as of molluscum contagiosum and of Paget's disease, and that the differences of these maladies depended solely on the diversity of pathogenic coccidia. He further held that, being local diseases, they yielded, as a rule, to local treatment (a bold statement with regard to at least two out of the three maladies), and suggested that the coccidia were transferred from animals to the human subject. Such views are too hypothetical to require any discussion.

(*To be continued.*)

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* An abstract of the paper will be found on page 266.

CLINICAL NOTE.

ON A PAPULAR ACNEIFORM ERUPTION WITH COLLOID MASSES RESEMBLING THOSE FOUND IN MOLLUSCUM CONTAGIOSUM.

BY JOSEPH FRANK PAYNE, M.D.,

Physician to St. Thomas's Hospital, and to the Hospital for Diseases of the Skin, Blackfriars.

THE case here described has a certain resemblance to diseases which have been regarded as due to the action of animal organisms or psorosperms. Without assuming that to be the correct explanation of the appearances found in this case, and without pretending to pronounce any opinion on the general question as to the importance of those organisms in affections of the skin, I think the features of the case may be worth recording. It would no doubt have been preferable to wait till a series of such cases could be collected, were it not that in so rare a condition that might mean an almost indefinite postponement.

Clinical History.—Miss F., aged 29, consulted me in January, 1891, for an eruption on the forearms and hands which had lasted for a year and a half, and had lately spread somewhat rapidly. It consisted of elevated conical papules, about twenty on each arm, hard, smooth and pale, the size of rather small shot. The older ones were very hard, and showed considerable epidermic hypertrophy, but were not scaly, the superficial epidermis passing smoothly over them. Those said to be recent were not larger than a pin's head, and showed, on careful examination, a central depression with a very minute orifice. A tiny drop of fluid could be squeezed from them, and if scratched (though there was scarcely any irritation) the papules would show a little moisture on the surface, or bleed; but there was no continuous exudation. The remarkable fact in the history was that the same papules remained unchanged for the whole duration of the eruption, which was not prolonged merely by successive crops. I could not find any clear traces of papules that had disappeared. The patient's skin was particularly soft and delicate.

The eruption had first appeared on the extensor surface of the two wrists successively, and had been lately spreading rapidly to the backs of the hands, and on the left forearm almost up to the elbow. One or two papules were situated between the fingers.

It was difficult to say precisely in what category of elementary skin-lesions these should be placed. I have called them papules as a general term for small hard elevations of the skin, but they were distinguished from all ordinary inflammatory papules or vesicles by their permanence, some having existed apparently for a year and a half. They certainly did not resemble lichen in any of its forms. One of my colleagues, to whom I showed the case, thought the lesions were like acne. It seemed to me, however, that the situation, as well as the absence of comedones or any kind of sebaceous matter, differentiated them from acne; while, at the same time, I could not trace any connection of the papules with hairs either large or small. On the other hand, notwithstanding the minute central orifice, they had a great resemblance to warts, being so largely composed of thickened epidermis. On the whole, I cannot say that the lesions precisely corresponded to any form of skin-disease with which I am acquainted; but on the ground of the histological structure, which will presently be described, I think it had more analogy with molluscum contagiosum than with any other disease. This latter affection, too, it may be observed, has much of the external appearance of acne, so that it has been called by the French school acne varioliformis; and, at the same time, being largely epidermic in structure, has much resemblance to a wart. So that, even irrespective of minute histology, there would be a general resemblance between the two affections.

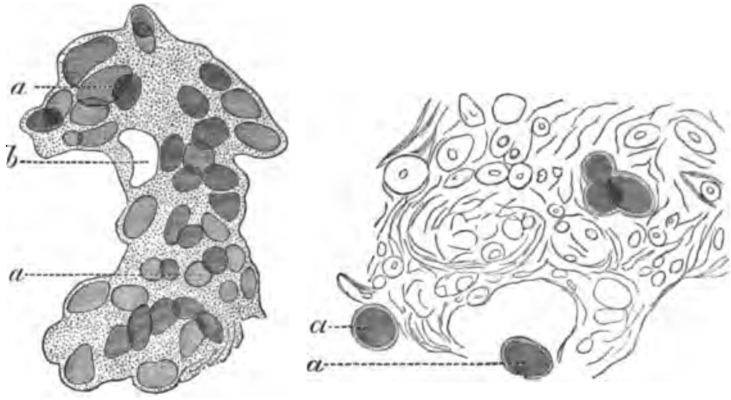
Individual and Family History.—The patient was in perfect health, and of robust constitution, so that she could not remember ever having had an illness. All the functions of the body were normally performed. There was no affection whatever of any other part of the skin. She was of a large family, all quite free from history of any skin-disease, and very healthy, except that the father and one sister had suffered from rheumatism.

The eruption appeared after the patient had been staying at the seaside; but she was not out of health at the time, and had not been exposed to any special form of irritation. There was no history of contagion to or from any other person. The general conclusion from the clinical history was that the eruption could not be due to any internal cause or disturbance of general health, but was such as might be produced by an external infection with some pathogenic material or organism. The mode in which it spread over the surface was also like a progressive inoculation, as seen in molluscum contagiosum, in warts, or in vegetable parasitic diseases.

Further History.—On first seeing the patient, I prescribed a lotion containing solution of coal tar and a similar ointment. The patient returned in about a week, having used the applications, but without the slightest benefit. Indeed, there were a few new papules, which were very small, not larger than a pin's head, with a central depression. Except for this peculiarity the appearance was that of very minute warts. After excising a portion for examination—of which more anon—I prescribed salicylic acid collodion (30 grs. to the ounce). The patient went into the country for three or four weeks, and on her return the eruption was practically cured, having all but disappeared, so that there was no opportunity for further investigation.

Microscopical Examination.—Though not able to excise a piece of skin in its whole thickness, I was permitted to cut out one or two of the papules with scissors. The general structure showed the papules to be composed chiefly of hypertrophied epidermis. On the under surface of the portion removed was seen the granular layer, with certain peculiar bodies to be mentioned directly. The central orifice could be traced, and was seen to be level with compressed cells like those of the deep layer. It was probably the orifice of a sebaceous gland, but the preparation did not go deep enough to make this certain. Small pieces of the papules removed were examined alone, or treated with ether to remove the fat (of which there was very little). Some were treated with acetic acid, by Bizzozero's method, and finally stained with methylene blue. The action of iodine solution was also tried.

The appearance of the deeper layers of epidermis, seen from below, was very striking. In certain parts were seen a number of highly refracting pearly-looking bodies, something like minute grains of rice, among the epidermic cells, from which they differed strikingly in appearance. They were roundish or oval in shape, clear or colloid and almost structureless, and much resembled the "molluscum bodies" of molluscum contagiosum. In a few could be dimly seen a central point or nucleolus, but this was not constant. When separated and stained with methylene blue they showed in some cases a double outline (fig. 2), but it could not be clearly made out that they were enclosed in cells. Their general shape and relation to the epidermic cells are shown in fig. 1. The epidermic cells around were filled with granules (eleidin ?) such as are often seen in various conditions of the skin; they were irregular in shape and showed no definite reaction with colouring matter, so that they could not be regarded as micrococci. The ordinary staining reagents showed no bacteria of any kind, nor was there any trace of fungus elements. The central orifice was evidently a duct, and probably, therefore, the duct of a sebaceous gland; but no sebaceous products were detected. It is, however, to be remembered that molluscum, though not now generally regarded as a sebaceous affection, shows a central orifice.



1 2

DESCRIPTION OF FIGURE.

1. Fragment of granular layer of epidermis, showing the colloid bodies *in situ*. *a* Colloid bodies: *b*. Gap where one has dropped out. ×300 diameters.

2. Fragment apparently of a deeper layer of epidermis, showing oval bodies with distinct double outline, two of which are detached (*a*, *a*); more highly magnified.

Drawn by M. H. Lapidge.

With regard to the colloid bodies the question arises (as in the similar bodies of molluscum) whether they are parasitic organisms, perhaps, as has been supposed, animal and belonging to the group of psorosperms? or are they merely cells which have undergone a peculiar kind of degeneration? Although they certainly look like something foreign to the human body, I can see no evidence of their animal nature. They are quite motionless, and exhibit no sign of fission or production of spores, or any internal structure. They are also very resistant to chemical reagents. On the other hand, if regarded as degenerated cells, some transitional forms between them and normal cells should be found; but I was quite unable to discover any such forms; though possibly further investigation in another case might fill up the gap. In molluscum, on the contrary, transitions are easily found, for we can trace the colloid change beginning at one part of the cells independent of the nucleus. On the whole I prefer to regard them, pending further evidence, as altered cells; though the active agent in the degenerative process, which must be something locally infective and probably inoculable, is quite unknown. It is quite possible that there may be a parasite invading and altering the cells, which in consequence appear degenerated.

To recapitulate the points in which this affection resembles molluscum contagiosum: (1) It is apparently produced by an infective agent coming from outside; (2) spreads apparently by local contagion; (3) the lesions are exceeding chronic; (4) the deep layers of epidermis show peculiar structureless masses unlike normal cells; (5) a distinct central depression and orifice is found in each lesion.

On the other hand, the general appearance of the two diseases is totally different; there being no projecting molluscoid tumours in my case. It might be thought that we have here a very early stage of molluscum contagiosum; but this hypothesis would be hardly reconcilable with the long duration of the lesions. It might, again, be regarded as a papular form of the molluscum disease.

Another disease with which this case presents some points of analogy is the *psorospermose folliculaire végétante* of Darier,* also attributed to the action of psorosperms. Never having seen any of the cases to which this name has been applied, or preparations from them, I speak with great hesitation; but the external appearance of Darier's cases must certainly be entirely different from this. On the other hand, his figures of the microscopical appearance show bodies described as psorosperms greatly resembling the structures here described. The cases recorded by Dr. White, of Boston, (*Journal of Cutaneous and Genito-Urinary Diseases*, June, 1889, and January, 1890,) also seem to have been very different in external appearance, though agreeing with my case in the presence of bodies like psorosperms. The animal nature of those bodies was, however, doubted by Dr. White and his colleagues. Other cases have been described by Dr. A. Boeck, of Christiania, in which similar bodies were detected, and regarded by him as undoubted animal organisms (*Monatshefte für Dermatologie*, August, 1890 (vol. xi. p. 132). Since several of these cases have been described as keratosis pilaris (White), I may say that my case was totally different externally from the rare disease which I have been accustomed to recognize under that name.

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* Darier, *Annales de Dermatologie, etc.*, July, 1889.

It seems, however, as if in all these cases or diseases, as well as in molluscum contagiosum, there are peculiar structures present, probably either identical or analogous, the nature of which is as yet undetermined. To call them animal organisms is premature; to say that they are merely degenerated cells is an inadequate explanation. The record here given may perhaps be of use when the time is ripe for a final solution of the question.

LETTER FROM PARIS.

BY LOUIS WICKHAM,

Chef de Clinique adjoint to Saint Louis Hospital.

XI.

ON SOME CIRCINATE ERUPTIONS.

1. *Psoriasiform seborrhœic eczema and circinate psoriasis.*—We have lately had under observation a male patient, aged 28 years, who presented on the thorax an eruption the principal elements of which consisted of circinate bands, crescents and segments of circles from half a centimeter in breadth to from four to six or seven centimeters in length. The bands were constituted by thick imbricated scales of yellowish-white colour. These scales fell off easily and in great numbers on rubbing, the deeper lying ones being less yellow and more mother-of-pearl colour. The scales once removed, a red surface was exposed, very slightly raised above the level of the skin, as if formed by the aggregation of very small papules, and a final rubbing of the red surface caused the appearance of small drops of blood. These lesions gave rise to a very slight pruritus.

On a simple rapid inspection of the characters of these lesions, what would have been the reflections arising in the mind of a dermatologist familiar with the teaching of the Saint Louis School? The diagnosis made from the very first would have been "psoriasis"; but psoriasis of the "circinate, figured" variety, a form admittedly rare but doubtless existing, as is amply demonstrated by the beautiful casts which are to be found in the Saint Louis Museum. But a more careful examination enabled one to recognize the absence of the usual localizations of psoriasis on the elbows and knees, the absence of the primary papulo-squamous, isolated, discrete psoriasis lesions; and, finally, an inquiry into the history of the case revealed the presence of eruptive attacks more or less analogous to the present one in the last two years only, and not the existence of lesions dating from infancy or, at any rate, from several years back; and these lesions did not present the well-defined characters of common, straightforward psoriasis. These new facts made the diagnosis dubious, and one was bound to think of syphilis, especially of these papulo-squamous, circinate, psoriasiform syphilides which so perfectly simulate circinate psoriasis. Here, however, one was stopped by the absolute and almost certainly reliable negation of any antecedent syphilitic manifestation. Some years ago, in presence of these facts, one would have returned to, or would have remained content with, the diagnosis of "atypical, circinate psoriasis," while fully recognizing the obscure points which were insufficiently explained. Now-a-days such a case involves a more complex, more reasoned diagnosis.

The works of Unna, on seborrhœic eczema, which have been studied and diversely appreciated at Saint Louis, have opened up a much wider field for the diagnosis of the subject under discussion. When he saw the casts, which have been already alluded to, labelled "Psoriasis circinata," Unna, at the time of his visit to Saint Louis in 1888, at once declared that he considered the cases as instances of seborrhœic eczema.

Ought then the form of psoriasis called "circinate" to disappear in order to be included in the group of "seborrhœic eczema"? Further studies have not led us to admit this. For although these forms of circinate psoriasis are frequently associated with the lesions of seborrhœa on the scalp and on other parts of the body, it was impossible to abandon the idea of psoriasis; for the great majority of the patients who presented these circinate lesions had with absolute certainty been affected with ordinary psoriasis since their infancy; besides which, they exhibited patches of well-defined psoriasis in addition to the circinate elements.

The diagnosis of psoriasis admitted then of no doubt, *if not in all*, at least in the majority of the cases: note the reserve indicated in italics. Was it then necessary to abandon the ideas of Unna completely on our Saint Louis psoriasis, and to decide that his opinion was devoid of solid foundation? The answer to the question which we are about to give is that made by Mons. Brocq, and we admit that that master easily convinced us of the validity of his views when we had the good fortune to be his assistant. Brocq, with certain exceptions, retains certain morbid eczematous and psoriasic forms in the respective classes of eczema and psoriasis, which Unna includes in his group of seborrhœic eczema. He adds, however, that there is one element which was not sufficiently considered previous to the work of Unna, viz., a co-existent seborrhœa, which modifies the lesions presented by patients suffering from it; that, as regards their cutaneous covering, they possess a "seborrhœic constitution," and that their seborrhœa modifies their diseases, not only in their characters but also in their localization and evolution. Thus Unna has had the great merit of calling attention to these seborrhœic conditions, but one ought to consider the seborrhœa in these cases only as an influencing and modifying agent, as a secondary factor, not as the proper essential disease including under its influence all the morbid lesions presented by the patients. Is this not, indeed, the explanation given by Unna himself of the circinate and seborrhœic syphilides which occur in seborrhœic patients? According to Brocq the case would be parallel as regards certain eczemas, certain psoriases, and especially as regards the majority of the modified circinate cases of psoriasis which we have mentioned.

Let us resume the study of our patient and let us see, keeping in mind the preceding considerations, how far there are grounds for discussing after the diagnosis of simple circinate psoriasis and of circinate psoriasiform syphilides, (1) that of seborrhœic psoriasis in a patient of seborrhœic constitution, and (2) of the seborrhœic eczema of Unna. The complete examination of the patient enabled one to recognize, on the one hand, a series of manifestations resembling those of the seborrhœic eczema type, and, on the other, numerous signs negativing the view of psoriasis. First of all, the scalp was very decidedly seborrhœic, being covered with fatty scales disseminated all over it, not forming figured patches, but only rather more abundantly present in the temporal regions, at the vertex and especially along the anterior part of the scalp, where a veritable border (*liséré*) was formed by them; at these points the scales, which were rather drier than elsewhere, covered a surface of a diffuse pink colour. At no spot could one detect the projections formed by the accumulation of scales at special points, which often occur in psoriasis of the hairy scalp. On thoroughly examining the patient, extensions of this pink scaly band in the scalp were noted, on the one hand, towards the region of the whiskers, on the other, behind the ears in the auricular folds. In addition to the circinate and crescentic lesions on the trunk, already described, one noticed here and there, and especially in the præsternal region, some small, pink, non-elevated patches covered with fine, fatty scales. In each axilla there was a pink patch covered with a few scales and bounded at one part of its circumference by a thick circinate band analogous to the other circinate bands on the trunk. Besides, some of the segments of circles on the chest appeared to be the remains of patches, the centres of which had disappeared. Add to this the statement of the patient that these different lesions had made their first appearance in the scalp, to spread afterwards from above downwards, and one obtained thus the totality of the characters of Unna's seborrhœic eczema. On the contrary, the absence of psoriasic antecedents, the absence of the little initial psoriasic papules, and of patches on the elbows and knees, were additional reasons for separating the condition from psoriasis. Finally, it is allowable, after a profound study of the patient, to reject the more usual diagnosis of "psoriasis modified by seborrhœa in a seborrhœic person," *i.e.*, of "seborrhœic psoriasis," in favour of that of "psoriasiform seborrhœic eczema."

The study of this patient enabled us to demonstrate that certain cases of the psoriasiform seborrhœic eczema of Unna may simulate to perfection simple circinate psoriasis, and especially circinate psoriasis in a seborrhœic subject. The real diagnosis of such cases cannot be made by the simple inspection of a cast, or on the mere consideration of the circinate lesions themselves; to avoid error one must provide oneself with arguments based upon the antecedents, the general evolution, and the characters of *all* the lesions present. The question of coincidence—or accidental association—must also not be lost sight of.

2. *Seborrhœic eczema and pityriasis circinata.*—In considering pink, scaly, circinate lesions, the points which determine the diagnosis of seborrhœic eczema are :—the evolution from above downwards, the starting point being the scalp, which is covered with abundant seborrhœa, the seborrhœic border along the forehead, the extension of the seborrhœic patches in front of and behind the ears, to the eyebrows, along the nasogenian folds, as well as the patches in the articular flexures and in the præsternal and interscapular regions.

By the determination of these different characters one is incontestably bound to include under Unna's seborrhœic eczema such diseases as have been described as "dry, circinate eczema of the trunk," "flannel eczema," &c. But the very frequent absence of these characters in certain cases of pityriasis, as in the "pityriasis rosea" of Gibert, authorizes us, for the present, to consider these pityriases as separate and special diseases. In this connection we have lately observed a very interesting annular eruption. A male patient exhibited on his trunk, both in front and behind, about thirty circular, disseminated patches measuring from half to three centimeters in diameter. Their borders, which were pinkish red, were perfectly circular and from two to three millimeters in breadth. The patches were slightly elevated, covered with light, scanty, whitish scales, and nowhere were vesicles or vesico-pustules present. In places a second concentric circle, parallel to the first and barely separated from it by a space of two to four millimeters, was present. Their centre was always flat, on the general level of the skin, sometimes pink and covered with light scales, sometimes perfectly healthy like the surrounding skin, and these latter lesions offered the appearance of rings. There was no itching; the affection was of one month's duration. One's first thought was directed towards "tricophytic herpes circinata" (Tinea circinata), especially on account of the concentric circles, even although no vesico-pustules were present. But the most careful microscopic examination failed to reveal the presence of tricophyton. This diagnosis being thus eliminated, there remained seborrhœic eczema; but there were none of the principal signs of that affection as we have already indicated them; nothing on the scalp or face, nothing in the articular flexures, no predominance in the præsternal or interscapular regions. The history showed that the patient had never had a scurfy head, nor redness of any part of the trunk. In presence of these facts one hesitated, and finally refused to make the diagnosis of seborrhœic eczema. For otherwise it would be necessary to admit that that affection could exist without the fundamental characters above enumerated. And, indeed, such a case is just possible, for we do not yet know what are the exact limits of the disease called "seborrhœic eczema." In cases where the diagnosis is a delicate one, no positive decision can be established as long as our knowledge of the parasites special to the disease remains imperfect. For the present it seems necessary to consider lesions analogous to those which we have just described as special parasitic affections. Indeed if we examine closely into cutaneous pathology we shall see that such lesions are nearly related to those which have been described by Mons. Vidal under the name of "Pityriasis circinata," in which our learned master has identified the presence of a specific fungus, the *microsporon anomœon, vel dispar.*

3. *Papular syphilides arranged in concentric curves and in cockade-like groups:—circinate lichen ruber planus.*—Mons. Hallopeau recently showed at the Dermatological Society a woman who exhibited red circinate lesions on the face and on the upper part of the trunk and arms. The eruption was an extremely figured one, polycyclic, and made up of prominent tracts from two to three millimeters in breadth, and with infiltration confined to the derma alone, which formed concentric and intersecting circles. The areas thus circumscribed were healthy; there were no scales. Although the woman presented no syphilitic antecedents, Mons. Hallopeau, with his usual insight, diagnosed syphilis, and the ultimate success of specific treatment proved that his diagnosis was correct. Nevertheless, as we shall see, there was much room for hesitation. One might have thought of *erythema multiforme,* and, indeed, the tracts were redder than they usually are in syphilis. Besides, there was present on the face a patch less prominent and more violet in colour, which might have misled one still farther from the idea of syphilis. On the other hand we know that eruptions of multiform erythema sometimes exhibit very remarkably circinate arrangement; this question we shall consider a little later on. The only fact absolutely negativing this diagnosis was the duration of the lesions, which dated from a period much more remote than the lesions of polymorphous erythema ever could exist from, as a persistent condition. But that is not all; one might have thought of a case of *circinate lichen ruber planus,* for there are cases of that disease in which the papules join to form continuous lines, or even circinate and polycyclic tracts. There exists in the Museum a cast of an undoubted circinate lichen ruber planus—undoubted because in the case, which belonged to Mons. Hallopeau, this authority was able to establish his diagnosis by the presence of typical lichen planus papules on the legs. The lesions shown in the cast, when placed beside those exhibited by the woman we are discussing, appeared

to be identical. In the woman the linear projections were perhaps a little more acuminate, less flat and less shiny than in lichen ruber planus. There was also no itching, and the violaceous patch on the face, which we have referred to, led one from the idea of lichen planus. Thus we see how the knowledge of rare and abnormal facts such as are met with, especially in vast dermatological centres, may enlarge the ground of discussion and diagnosis. We have ourselves observed, when assistant to Mons. Vidal, syphilitic lesions identical, as regards their circinate arrangement and general characters, with those of Mons. Hallopeau's patient, but with this difference, that they were much less like multiform erythema and might, on the contrary, have been much more easily mistaken for lichen ruber planus. The lines were not continuous and made up of papular elements running one into the other, but were divided into distinct papules lying close together, without confluence. In addition, these papules had a perfectly flat, lichenoid summit,and were extremely smooth and glistening. In this case the diagnosis of lichen ruber planus imposed itself upon one ; the result, however, showed that the case was one of syphilis.

4. *Multiform, papular, circinate erythema.*—We have just considered various affections which showed in their general arrangement marked circination, and all of which were parasitic. In presence of any circinate eruption, some persons have a tendency to think at once of parasitism. One must, on the contrary, carefully guard against such a first impression. We have just alluded to the case of a disease very perfectly circinate, but which was one of lichen ruber planus. It is also well known how circinate a multiform erythema may be. Sometimes, although very rarely, the erythema, more or less annular, surrounds healthy skin, but more frequently the circinate erythematous lines are only the boundaries or sole remains of patches which have faded or disappeared. A woman, aged forty years, laundress, whom we have lately had the opportunity of observing, presented on her face and arms some red, tumefied lesions, without any scaling, from the size of a pea to a franc-piece. On the backs of both hands were absolutely symmetrical lesions. These lesions first appeared in the form of a line, broken here and there, made up by the union of little segments of circles, the whole presenting a very delicate and graceful circination. The lines were purplish-red, erythematous, raised about three to four millimeters, from two to three millimeters broad, and

seven to eight centimeters long. On more minute inspection, one could perceive that the lines were indeed the remains of the borders of erythematous patches which had almost disappeared, but were still recognizable by their darkish colour, which vanished under pressure with the finger. The circination of the multiform erythema was one of the most beautiful it is possible to see; and when we say that one must be on one's guard against too promptly identifying the idea of circination with that of parasitism, we are thinking more especially of psoriasis, the frequent configuration and circination of which are the best arguments employed in favour of its parasitic nature.

CURRENT LITERATURE.

THE NERVE-ENDINGS IN THE LABIA MINORA AND CLITORIS, with special reference to the Pathology of Pruritus Vulvæ. J. C. WEBSTER, B.A., M.B. (*Laboratory Reports—Royal College of Physicians*, Edinburgh. Vol. iii., 1891.)

Webster first discusses the differences in the recorded results of the observations of Carrard, Ballantyne, Krause, Schweigger-Seidel, Kölliker, Klein, and Frey, on the nature of the nerve-endings to be found in the labia minora and clitoris, and then proceeds to give his own conclusions formed from the study of a large series of the thinnest sections cut in paraffin and differentially stained. In the labia minora he found a few (*a*) Pacini's or Vater's corpuscles both in single and compound forms, (*b*) Krause's end-bulbs, which are the most numerous, and (*c*) a few Wagner's and Meissner's touch-corpuscles. In the clitoris he demonstrated (*a*) Meissner's corpuscles, few in number, (*b*) end-bulbs, (*c*) a few Pacini's corpuscles, and (*d*) Krause's genital corpuscles. It has been proved beyond doubt that the labia minora are skin and not mucous membrane, and Dr. Webster has found sweat-glands present. Secondly, the author reviews the known and alleged *causes* of pruritus vulvæ and the distribution and seat of the itching, and shows how unsatisfactory is our information. Thirdly, he deals with the treatment, and states that in the obstinate cases for which no evident cause can be found "at present the orthodox plan of treatment is to make the patient apply locally many lotions and ointments for months, until at last in despair she gives up and goes to someone else, who again puts her through the same weary round of washings." The only way, the author thinks, in which we can bring about a complete cure is by the *thorough removal of the affected parts.* After obtaining the full consent of the patient he removes a spindle-shaped mass of tissue extending from half an inch above the clitoris as far down as a point midway between the glans and the urethral orifice. Lastly, dealing with the pathological anatomy of the tissues removed, he shows that there may be some hypertrophy, either primary or secondary. But the special point is that the author found in his cases a *slowly progressing fibrosis*, affecting chiefly the nerves and nerve-endings of the clitoris and labia minora. To this is added a more recent sub-acute inflammation of the connective tissue framework of the parts, and due probably to the long-continued irritation of the scratching. T. C. F.

ARSENIC AS A DRUG. JONATHAN HUTCHINSON. (*Brit. Med. Journ.*, June 6th, 1891.)

In his post-graduate lecture delivered on the 2nd inst. Mr. Hutchinson confined his attention almost entirely to the therapeutical effects of arsenic from the dermatologist's point of view. Certain forms of skin-disease are influenced rapidly and with certainty by arsenic. Foremost among these comes pemphigus diutinus or persisting pemphigus. "As a rule, no fresh bullæ are produced after the administration of the arsenic has been commenced, and the patient quickly regains health, with perfect soundness of skin." There are, however, some exceptional cases occurring in elderly people and those which are complicated by disease of the mucous membrane of the mouth which do not so yield to treatment. A typical case of dermatitis herpetiformis under his observation for six or seven years was always cured in the most definite manner and very quickly by the use of arsenic. A case of severe erythematous eruption on limbs and trunk of a boy which had defied treatment previously, at once yielded to arsenic and disappeared.

In psoriasis, although the effect of arsenic is quite as definite and certain as in pemphigus, it is not so immediately curative. It seldom or never brings about a complete cure of this malady.

In lichen planus its effects seem to be uncertain; sometimes it has seemed to be of great service, at others to have aggravated the disease.

The influence of arsenic seems to be unfavourable, as a rule, in elderly persons, especially if symptoms of nerve degeneration be present. It aggravated, for instance, a case of paralysis agitans. While it seems to check recurrent herpes, it may in some cases bring on herpes zostes, when administered for other affections, by apparently setting up peripheral neuritis.

Attention was specially drawn to some of the ill-effects of large doses or too long continuance of the drug, such as local numbness, especially of portions of skin of lower extremities, numbness and tingling of the soles of the feet, brown and muddy-looking discoloration or actual pigmentation of the skin, scaly patches forming on knuckles, elbows and knees, much resembling common psoriasis, but less circumscribed; dryness of palms and soles from disturbed nutrition; formation of corns and, in very exceptional instances, the passage of these corns into epithelial cancer.

[Having had the pleasure of attending the lecture, which was full of valuable information gathered from Mr. Hutchinson's great clinical experience, I had the advantage of seeing his large collection of plates and photographs employed to illustrate the lecture. One of these specially attracted my attention. It was a plate showing "symmetrical" epitheliomata of both hands. The patient was an American doctor who had taken arsenic in large doses for a long period for the relief of psoriasis. A smaller plate illustrating the same case appeared in *Archives of Surgery*, Vol. II., No. 5, July, 1890. Having had personal experience of the irritation caused by the reins and whip while riding and driving with very thin gloves, or without gloves, it at once occurred to me that if Dr. W. had been in the habit of driving himself the reins in the left hand and whip in the right might have played the corresponding part in producing the cancer to that which the pipe plays in the production of epithelioma of the lower lip. The theory of inoculation of one hand from the other may, I think, very fairly be advanced in this case. Some years ago I was led to suspect that epithelioma could be communicated from one part to another or from one patient to another under certain conditions. I may perhaps be allowed to refer to two cases which made most impression on my mind. I was called upon to attend a woman of about seventy years of age and her son. who was over forty; both were living in the same house; both were smokers, and admitted the probability of having exchanged pipes frequently. The woman had extensive cancer of the mouth, and died not long after I saw her. The son, who had epithelioma of the lower lip, was operated upon and cured. While admitting that arsenic may indirectly favour the origin or development of epithelioma by disturbing nutrition, and perhaps, like psoriasis, damaging particularly its protecting layer of horny cells, it is probably in the direction of such labours as those of M. Wickham that many of us will look hopefully in the future for the discovery of the essential cause of cancerous growths.]

ALFRED EDDOWES.

ON CUTANEOUS PSOROSPERMOSIS, MOLLUSCUM CONTAGIOSUM, AND PAGET'S DISEASE._ Professor NIKOLAI P. MANSÜROFF. (*Proceedings of the Fourth General Meeting of Russian Medical Men at Moscow*, 1891, No. 2, p. 67, and No. 8, p. 267.)

Professor Mansüroff, of Moscow, contributes an able and exhaustive paper on the subject, in which he advocates the following general propositions :—

1. As regards their etiology, Darier's *psorospermosis cutanea*, *molluscum contagiosum*, and Paget's disease of the nipple belong to one and the same group of parasitic affections of the skin, all three being caused by coccidia (sporozoa or gregarinæ).

2. Certain differences in their clinical manifestations depend solely upon peculiarities of the layer involved.

8. All the three forms represent purely local affections, and yield to appropriate local treatment.

4. The infection occurs mostly through the agency of lower animals, the parasites penetrating into the cutis, probably, both through the circulation and from without.

Having sketched the pathology and symptomatology of the diseases, and reviewed their international literature,* the author gives the details of an interesting case from his own practice, in the person of a gentleman, aged 27. When nine years old, the patient had first noticed a small, dark red, wart-like new growth, situated about the middle of his left cheek. The "wart" had begun to grow rapidly, while similar tubercles soon afterwards appeared near the nose, and on both sides of that organ. When twenty years of age, he had cut off all the "pimples" with an ordinary table-knife, the procedure being followed by very profuse hæmorrhage. Shortly afterwards the eruption rapidly spread over the face, neck and body. When first seen by the author, in November, 1889, the gentleman presented the following condition :—(*a*) the middle regions of the cheeks, the areas in the vicinity of the nose, and the chin were studded with closely aggregated, small dry, hard tubercles; (*b*) his whole neck was encircled with pedunculated mulluscoid growths; (*c*) in the lumbar region, over an area about twice the size of an average man's palm, there was present a diffuse cutaneous induration in the shape of a flat elevation, the skin feeling harsh and rough; (*d*) the patient's whole body was studded with minute brownish papules, closely resembling "goose-skin." The affection ran its course without any inflammatory phenomena whatever, the patient's general health remaining good all through. The treatment adopted was :—(*a*) the ablation of the cervical mollusca by means of a knife and subsequent cauterization with solid nitrate of silver; (*b*) painting the tubercles on the face with a 10 per cent. solution of salicylic acid in collodion; and (*c*) a subsequent removal of the new growths by Volkmann's method of scraping with a sharp spoon. The little wounds healed fairly rapidly.

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* *Vide* Darier's papers in the *British Journal of Dermatology*, October 1889, p. 410, and November, p. 454; Louis Wickham's, *ibid.*, October, p. 409, and July, 1890, p. 224; L. D. Bulkley's, *ibid.*, March 1891, p. 87; L. Pfeiffer's, *ibid.*, April, p. 125, &c.

The author adds that he has accidentally discovered in the library of the Moscow Naturalist's Society, a remarkable oil painting, executed about fifty years ago, and reproducing a naked young man, life-size, whose whole face, body and hands are covered with numberless mollusca of varying dimensions, while the inguinal regions are occupied with "an unmistakable vegetating follicular psorospermosis (Darier)." "Evidently," the author observes, "the new disease is, in reality, very old."

[Professor V. M. Tarnovsky, of St. Petersburg (*Vratch*, No. 6, 1891, p. 185), says that he has at present under observation a case of Paget's disease, or psorospermosis of the glans penis in a syphilitic patient, the lesions (a circumscribed "weeping" area with vesicles) somewhat resembling eczema, and being accompanied by induration, ulceration, itching and pain. Treatment for four months by various means has utterly failed to make any impression upon the affection.

Professor A. I. Pospeloff, of Moscow (*Meditsinskoïë Obozrenië*, No. 2, 1891, p. 189), states that he has also under his care a case of "coccidiosis" of the penis in a man of fifty-five, of about twelve months' standing, the process being localized on the foreskin, close to the frænum, on both sides, and the tissues presenting a cartilaginous hardness. Of late a local application of a 2 per cent. solution of borax, was followed by a marked amelioration.

A case of Paget's disease of the penis and scrotum, reported by Dr. Radcliffe Crocker, may be found in the *British Journal of Dermatology*, December, 1888, p. 68.—*Reporter*.]

VALERIUS IDELSON (Berne).

CASE OF DARIER'S PSOROSPERMOSIS. DR. IVAN F. ZELENEFF. (*Vratch*, No. 12, 1891, p. 318.)

At a recent meeting of medical men attached to the Kïev Military Hospital, Dr. Zëlëneff showed a soldier, aged 22, with psorospermosis of six years' standing, the dermatosis having commenced with the eruption of numerous, slightly itchy, dirty-greyish small "warts" on the nose and cheeks, and later on, about six months afterwards, on the hands, and in the groins. At present the patient's whole body is involved, the affection being most intense on the hairy scalp, face, scrotum, around the anal orifice, and on the dorsal aspect of the hands and feet. The eruption consists of hard, dry, horny, dirty-brownish or grey flat papules, which are either scattered indiscriminately, or aggregated in groups, or form rather prominent patches, resembling fairly regular ovoids, or quadrangles with rounded angles. Each papule contains in its centre a minute black point, or (especially on the head) a hair. "Extirpation of the horny structures leaves bleeding spots." Both scraping and extirpation are painless. Only the lesions on the face are somewhat itchy, none of the remaining being accompanied by any abnormal sensations at any stage of their development. Having attained a certain size, the tubercles undergo atrophy, leaving scars. The skin between the papules and patches is perfectly normal everywhere, except about the nose, in which situation there is present an undue amount of vascularity, much resembling the state of things in cases of acne rosacea.—The patient's father, aged 60, is suffering from cutaneous cancer of the glabella.

VALERIUS IDELSON (Berne).

SCLERODERMIA. Dr. LEV N. MÜRZIN and Professor NIKOLAI P. MANSÜROFF. (*Meditzinskoië Obozrenïë*, No. 2, 1891, p. 168.)

At the Fourth General Meeting of Russian Medical Men, Dr. Mürzin, Resident Physician to the Mïasnitzkaia Hospital, in Moscow, exhibited a case of this rare and obscure affection in a prostitute, who had been formerly treated in the hospital four times on account of syphilitic relapses. The disease was limited to a circumscribed area on the right side of the abdomen, the skin being partly infiltrated, partly atrophied and dark-coloured. The infiltrated region formed a flat elevation with ill-defined boundaries, the whole affected area feeling hard, parchment-like, and incapable of being picked up. A subcutaneous injection of pilocarpine failed to induce sweating over the diseased region. In the infiltrated district, cutaneous sensibility was diminished, while in the atrophied part it was normal. The reflexes were unaltered. A hypnotic examination elicited the fact that the anæsthesia was of an organic origin (and not of a hysterical or functional nature), being probably dependent upon the infiltration compressing the peripheral terminations of cutaneous nerves. Dr. Mürzin draws attention to the great rarity of sclerodermia. In the course of the last five years only two cases of the kind were met with in the hospital, the total number of patients with cutaneous diseases amounting to 2,000 during the period.

Professor Mansüroff related two instances of the affection, one of them being that of a woman, in whom a severe diffuse sclerodermia developed consecutively to profuse suppuration; the patient had been suffering from vesico-vaginal fistula with abscesses, which had burst through the groin. A substantial improvement was obtained from electrical and balneological treatment in combination with a strengthening dietary. The other case was that of a boy who while skating had fallen and contracted a severe contusion of the thigh, the injury being followed by suppurative periostitis with an extensive detachment of the periosteum and a concomitant sclerodermia. The same treatment was resorted to, and similarly satisfactory results obtained.

[A series of papers bearing on this interesting subject may be found in the *British Journal of Dermatology*, to wit: Gardner's, March 1889, p. 159; D. W. Finlay's, August, p. 339; H. Handford's, September, p. 388; O. Rosenthal's, September 1890, p. 291; Thibierge's, *ibid.*, p. 292; Eichhoff's, February 1891, p. 61; and Professor Mendel's, March, p. 94.—*Reporter.*]

VALERIUS IDELSON (Berne).

THERAPEUTIC NOTE.

ON THE ABORTIVE TREATMENT OF HERPES BY THE APPLICATION OF EITHER PURE ALCOHOL OR OF AN ALCOHOLIC SOLUTION, AFTER THE METHOD OF PROFESSOR LELOIR. DR. DUPAS, Lille. (1889.)

The treatment of herpes by applications of pure alcohol or of alcoholic solutions suggested itself to M. Leloir under the following circumstances. He himself became subject to intermittent attacks of herpes labialis, and it occurred to him to try the effect of an application of Eau de Botot at the moment when the eruption began to make its first appearance. At the end of some minutes, he observed that not only had the pain entirely disappeared, but that the progress of the eruption was also arrested. In three-quarters of an hour the applications of Eau de Botot had completely stayed the herpetic eruption. Since then this remedy, as employed by M. Leloir in both clinical and private practice, has given most remarkable results.

In his inaugural dissertation M. Dupas has further developed the theories advanced by M. Leloir in one of his clinical lectures given at the Hospital St. Sauveur in the year 1885. He proceeds to explain the symptomatology and pathological anatomy of herpes. He next gives a short critical history of the various kinds of treatment practised for herpes previously to that adopted by M. Leloir. Under the influence of treatment with alcohol, says M. Leloir in his clinical lecture, it will be found that at the erythematous stage of the disease the complete disappearance of the eruption is the rule—and that too, very rapidly—within a few hours, or even less, if the treatment has been sufficiently energetic.

When the herpes has reached the stage of vesication the disappearance of the eruption should take place in a few days at most.

When the disease has reached the period of vesico-pustulation, or even that of pustulation, it will be found that the duration of the eruption is very considerably shortened. The vesico-pustules and pustules subside and dry up with great rapidity. The same remark applies to the congestive inflammation of the surrounding epidermis. With this treatment you may see a violent attack of either ordinary herpes or herpes zoster develop and be completely cured, all in the course of a few days.

Nor is it on the eruptive element only that this treatment exercises a beneficial influence. It may be affirmed in a general way that the pain at the seat of the eruption is always lessened in a remarkable manner, and the same is true in most cases of the neuralgic pains in adjacent parts.

M. Dupas then passes in review the various forms in which M. Leloir makes use of alcohol. At first, about the year 1882, M. Leloir generally employed Eau de Botot or alcohol 90 degrees in strength. In 1884 he used alcohol of 90 degrees strength with a slight admixture of carbolic acid, which seemed to him to lessen the burning sensation, and even the element of pain. Since 1885 he has prescribed in succession alcohol of 90 degrees with a slight addition of either resorcin, thymol, or menthol.

The following are some of the formulæ preferred by Professor Leloir:—

1.	Alcohol of 90 deg.	100 grammes.
	Resorcin, pure	2 grammes (*i.e.*, 10 grains to the ounce).
2.	Alcohol of 90 deg.	100 grammes.
	Thymol	1 gramme (*i.e.*, 5 grains to ℥j).
3.	Alcohol of 90 deg.	100 grammes.
	Menthol	3 grammes (15 grains to ʒj).
4.	Alcohol of 90 deg.	100 grammes (or ℥j).
	Thymol	1 gramme (5 grains).
	Resorcin	2 grammes (10 grains).
5.	Alcohol of 90 deg.	100 grammes (ʒj).
	Menthol	3 grammes (15 grains).
	Extract of Cannabis Indica	5 grammes (25 grains).
6.	Alcohol of 90 deg.	100 grammes (ʒj).
	Phenic acid	25 grammes (about 1 grain).
7.	Alcohol of 90 deg.	100 grammes (ʒj).
	Phenic acid	2 grammes (about 1 grain).
	Extract of Cannabis Indica	4 grammes (20 grains).
8.	Alcohol of 90 deg.	200 grammes (℥j).
	Resorcin	6 grammes (15 grains).
	Hydrochlorate of Cocaine	1 to 4 grammes (2½ to 10 grains).
9.	Alcohol of 90 deg.	50 grammes (ʒj).
	Tannin	6 grammes (3j).
10.	Alcohol of 90 deg.	50 grammes (ʒj).
	Tannin	5 grammes (50 grains).
	Chlorhydrate of Cocaine	1 gramme (10 grains).
11.	Alcohol of 90 deg.	500 grammes (ʒj).
	Extract of Cannabis Indica	25 grammes (25 grains).
	Hydrochlorate of Cocaine	6 grammes (6 grains).
	Essence of Peppermint	50 grammes (6 minims).

These different solutions are applied by means of pads made of wadding frequently renewed during the day.

M. Dupas concludes by bringing forward some very convincing cases in support of his views.

P. Tavernier.

THE BRITISH
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SEPTEMBER, 1891.

ON THE VALUE OF ANTIMONY IN VARIOUS INFLAMMATORY AFFECTIONS OF THE SKIN.

BY W. ALLAN JAMIESON, M.D., F.R.C.P.E.,

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WHILE arsenic enjoys to an unmerited degree the confidence of the bulk of the profession generally as a remedy in cutaneous disorders, and is prescribed almost indiscriminately in all forms, antimony, which offers so many points of analogy with its more popular rival, in therapeutic action, has been comparatively neglected. It is true that efforts have been made from time to time by acute observers to bring it into more extensive use in suitable cases. Thus Cheadle and Malcolm Morris have emphasized its value in eczema, Jonathan Hutchinson in lichen planus. Yet it is doubtful if their statements have aroused the attention they deserve, and therefore the relation of the following instances in which benefit of a marked character resulted from the employment of antimony may possibly not be devoid of interest.

1. *General exfoliative dermatitis.*—T. R., a well-built labourer, aged 24, who though he suffered from some severe illness,—the nature of which could not be ascertained,—when seven years old, has since then had excellent health. In the commencement of the month of August, 1890, he noticed some scaly patches on the knees and elbows, which itched so as to cause him to scratch to relieve the sensation. Though

limited at first to the situations named, in course of time they spread, and fresh spots appeared on the trunk and limbs. A doctor whom he consulted diagnosed psoriasis and prescribed a chrysarobin ointment; this he had used three times a day for three days when he presented himself at the Royal Infirmary on the 12th of October, 1890. The appearances were at that time those of ordinary psoriasis *plus* a certain degree of erythema apparently due to the ointment. The erythema was pretty extensive, there was now considerable itchiness, and Dr. Wyllie admitted him into Ward 31, where he allowed me to direct the treatment.

The redness rapidly spread, and by the 28th of October had become universal. He complained that the integument felt too tight for him, while he was constantly chilly. On the scalp there was a thick coating of dry heaped-up scales, so that the condition there resembled a dry eczema or intense seborrhœa. The ears were red and peeling, while from the whole surface there was a continual exfoliation of thin, dirty yellowish-white lamellæ, which could be separated without in any apparent way injuring the epidermis. Between the scapulæ these had accumulated in masses presenting a light yellow colour. On the fore-arms the skin looked tense and drawn. The epidermis of the palms was dry and hard. The face though red was smooth, the eyelids a little everted. The nails, somewhat more curved than usual, were otherwise normal. The tongue was clean, the digestive functions performed naturally. The urine exhibited nothing abnormal. Starch baths instead of relieving him gave rise to pain, and no benefit resulted from a lotion of calamine and boracic acid, nor from one of prepared chalk and olive oil, oxide of zinc, water and salicylic acid. At this stage he was seen by Mr. Jonathan Hutchinson during his visit to Edinburgh, and allusion is made to his case at page 308 of his "Archives of Surgery," vol. ii. Mr Hutchinson suggested that he should have one-eighth of a grain of tartrate of antimony three times a day, and to this was conjoined inunction with purified whale oil. By the time this had been taken for five days, the skin had become everywhere smoother, and in some situations, as in the bend of the elbow, over the tip of the shoulder, and slightly elsewhere, areas of normal skin were beginning to appear, on which the exfoliation had ceased. The integument too was less tense; it had never been, so to speak, infiltrated. The treatment was steadily persevered in till he was discharged well in the end of November, though, even then, there was some degree of scurfiness of the scalp. On other parts of the body the skin was soft, pliant, and in all respects natural in appearance.

2. *Acute erythematous and moist eczema.*—E. V., 79, a healthy woman for her age, was sent into the City Hospital as a case of erysipelas on 28th of May, 1891. She thought she had caught cold on the 22nd of May, but felt very little wrong till the morning of the 24th, when she began to experience a sharp and painful itchiness all over the left side of the face. By the advice of a friend she bathed it with warm water, which temporarily relieved it. The itching and swelling of the face steadily increased so as to close both eyes. When admitted, the whole of the patient's face was uniformly swollen, very tense to the touch, bright red in colour, but quite dry. The condition was entirely limited to the face, including the forehead, though it extended somewhat down the sides of the neck, the glands at the angles of the jaws being slightly enlarged. The margin of the redness was a double one, the inner portion presenting a brightly coloured tint, the outer fading gradually into the natural hue of the skin. Burning, itching, and painful sensations were complained of, but there was no elevation of temperature. On the 3rd of June there was a good deal of crusting due to the drying up of moist exudation round the mouth and on the chin. Treatment was commenced on the 3rd and consisted of the administration of one-eighth of a grain of tartarized antimony thrice a day, and the local application of a dusting powder of salicylic acid, oleate of zinc, and talc. This relieved the itching to some extent, but as the oozing and crusting tended to spread, cold starch poultices containing boracic acid were applied for twenty-four hours, till the crusts had thus been caused to separate, when a calamine lotion with a drachm of boracic acid in six ounces was substituted for the powder, and found grateful and soothing. There was now some threatening of eczema on the trunk and limbs, in the form of numerous red, irritable, slightly scaly and rough patches. On the 6th the swelling of the face had markedly diminished, the itching had lessened, the patches on the body had faded, while she had slept well for two nights. Progress was now uninterrupted, and on the 12th it is noted that with the exception of occasional and not severe itching there was no uncomfortable sensation present, while all the local phenomena had vanished, and she was discharged well a few days later.

3. *Acute eczema in a female of gouty family.*—Mrs. E., aged 50, lives in a healthy part of the country. Her family are gouty, though she has not herself suffered. She had an attack of influenza in April, and since then has been more or less annoyed with eczema, chiefly affecting the face and hands. After treatment of a varied kind she went to Bath, and while there she lost the eczema, but no sooner had she returned home than it recurred more violently than ever. She consulted me in the middle of June, 1891. She then presented the aspect of a person in fair health, but the conjunctivæ were slightly sallow, the tongue was coated, and the bowels were said to be costive. Her face was swollen, the skin infiltrated, red, dry, hot and itchy. The palms too were a little scaly. She was ordered one-sixteenth of a grain of tartarized antimony thrice a day, to take a sufficient dose of the well-known mixture of sulphate of magnesia, sulphuric acid, and sulphate of iron as was found necessary every morning to move the bowels easily, and to apply to the face a calamine lotion containing a little carbolic and boracic acids twice a day. The antimony was continued only a week, as the face had improved so much that the time for its useful employment seemed to have passed. By the end of June the face was only a trifle rougher than natural, no itchiness, the appetite fair, and the bowels acting satisfactorily. A lotion containing a drachm of tincture of benzoin, a drachm and a half of glycerine, in six ounces of distilled water, was directed to be applied to the face occasionally; and as the eyes still looked rather yellow, teaspoonful doses of Oppenheimer's Liq. euonymin and pepsin were directed to be taken after meals for a week or ten days.

4. *Dermatitis bullosa.*—J. C., aged 53, a warehouse porter, who in general enjoys excellent health, was admitted into the City Hospital as a case of erysipelas, under the certificate of a medical man who had attended him, on the 16th of June, 1891. He stated that his attention was in the first place drawn to a red, exuding patch of inflamed skin, in front of and below the lobule of the left ear, about the size of a florin, by a sensation of "pins and needles" and of itching. This was treated, by advice, with boracic starch poultices, which, though they relieved the itching, swelling and redness continued to extend. He felt much depressed and his appetite failed. When admitted, the redness and inflammation of the skin had spread over the neck, most of the chest, before and behind, and down the arms

as far as the insertion of the deltoid, while it had also encroached to some degree on the face. The margin was not sharply defined, as in erysipelas, there was intense burning and itching, but as distinguishing it from eczema, there were many large bullæ scattered here and there over the surface. The skin was glazed and much infiltrated, the colour a deep scarlet red. His temperature was 101°. He was put to bed, as he looked and felt very ill, and boracic starch poultices continuously applied. On the morning of the 17th the temperature was 100·2°, in the evening 100°. On the 18th the temperature became and remained normal, but the appearance of the skin remained the same, although it was less irritable. One eighth of a grain of tartarized antimony was now prescribed, to be taken every four hours. On the 20th the swelling, redness, and itching had all greatly diminished, and next day an ointment, consisting of half an ounce each of prepared chalk and lard with two drachms of ichthyol, was applied several times a day to the whole affected part, which was also enveloped in cotton-wool. The antimony was discontinued on the 23rd. On the 26th he was entirely free from his complaint, the sole vestiges remaining being a few red stains where the bullæ had originally been. He felt, too, comparatively well.

5. *Lichen planus.*—S. A., 25, is occupied in official work of a healthy character, and one which involves no undue worry or anxiety. He first noticed a patch of lichen on the inner side of the left leg near the knee, in December, 1890. For this arsenic was prescribed, and it rapidly became worse and spread. It seemed to improve under mercury as hyd. c. cretâ, or as hyd. perchlor. c. cinchonâ. But this amelioration was apparently temporary, for arsenic was again prescribed, with the effect of marked increase in the amount of eruption, and aggravation of the subjective symptoms. He consulted me on the 29th of June, 1891. He complained that of late he could not sleep from the severe itching, while, since he had taken the arsenic for the second time, his face and feet had swelled, and the latter had become tender and sore when he walked. He looked a healthy man, the tongue was clean, the digestive functions in order, and no disturbance of the general system was discoverable. The skin of the trunk, abdomen, and back was stained a deep brown, and in the most highly pigmented parts were set patches and papules of lichen planus, coloured a dull, crimson red. In parts the papules were almost

purplish in hue, and in all respects corresponded to typical lichen planus. The eruption was very symmetrical. It occurred in large areas on the sacrum, in the groin on both sides, on the abdomen and chest; it was more in discrete papules, though also in patches, on the arms, the thighs, and legs. There was no eruption on the face, hands, or feet, nor on the tongue. He was quite certain that arsenic had made him worse, and told me he must have some other medicine, as he would not take it again. I ordered him baths of starch and potassa sulphurata at night, and one-eighth of a grain of tartrate of antimony every four hours for a week, then three times a day. He came back, exactly a month later, on the 29th July, looking the picture of health. He told me that he had not continued the baths long, as the itching soon ceased entirely, but he had taken the antimony for a week, five times a day, and for three weeks four times. He had experienced no ill effects, on the contrary he felt extremely well. On stripping him the skin was found still to be more pigmented than it ought to be, but the situations where the patches of lichen had been were now only barely recognizable as very delicate lilac stains. In some places the shape of the papules could be with some difficulty made out, but the disease was practically gone. He was advised, however, to continue the antimony in gradually diminishing doses for a week or two longer.

This case resembles very closely the one related by Mr. Hutchinson in his "Archives of Surgery," vol. ii. p. 88. In both, the eruption was aggravated by arsenic, and disappeared when antimony was substituted. In Mr. Hutchinson's case, opium was given along with the antimony, but in both it would appear that the latter drug was the curative agent, though Mr. Hutchinson, from the experience of one case, was unwilling to assert this as a fact.

When one endeavours to speculate on the action of antimony, one is led to compare it with pilocarpine; both act on the sweat-glands as stimulants, both improve the nutrition of the skin. If the story be true that Basil Valentine observed that when the sulphide was given to pigs it first purged and then fattened them, while on attempting to feed his brother monks in the same manner he killed them all, the error was probably one of dosage. Valentine would be too much alarmed at the result of his first experiment to proceed further and try smaller quantities. If Unna is correct in his view that there is a correlation between the functional activity of the sudoriparous glands and the deposition of subcutaneous fat, one can understand how the diaphoretic property of antimony could promote the augmentation of adipose tissue and simultaneously improve the pliancy and unctuousness of the integument. It would at the same time reduce congestion, remove infiltration, and lessen the tendency to premature epidermic exfoliation. It is true that in the instances cited antimony was not exclusively employed, or solely relied on, but it was the only common feature in the treatment of all alike, and there can be little question that its exhibition contributed materially to the rapidity of the cure.

ON PSOROSPERMS AND SKIN-DISEASES.

BY JONATHAN HUTCHINSON, JUNR.,

Assistant Surgeon to the London Hospital.

(*Conclusion.*)

2. *Molluscum Contagiosum.*—The idea that the oval and rounded cells found in the molluscum bodies are parasitic has occurred to several observers, and Neisser (in his paper on " Epithelioma Contagiosum "—an unfortunate name) has argued that they belong to the order of Gregarines. Leloir and Vidal have supported the view to a less extent, whilst Török and Tommasoli have argued against it. The latter (*Monatshefte für prakt. Dermatologie,* Band X., p. 34), inoculated pieces of molluscum contagiosum on the face of another patient, under the skin and into the peritoneal cavity of rabbits, and into the combs of fowls, with uniformly negative results. It may be noted that whilst fowls undoubtedly present occasionally coccidial lesions on the combs, rabbits have never been observed to be affected with them in the form of skin diseases or on the peritoneal surface. Ballance and Shattock have endeavoured, without result, to produce a skin disease with rabbit's coccidia by inoculating them from the liver on the ears of this animal.

Tommasoli and Török studied the molluscum cells in the warm chamber of the microscope for twenty-four hours, but observed no signs of growth or division. They noticed the remarkable resistance to the action of chemical reagents which has been observed in the suspected bodies from cases of Paget's disease, reagents such as acetic, nitric, and hydrochloric acids, liquor potassæ and ammonia. Control experiments with undoubted coccidia from the rabbit showed that the stronger reagents (with the exception of ammonia), caused their more or less rapid destruction, or very much altered their structure. They finally concluded that the supposed amœboid bodies were degeneration (? colloid) products. Piffard came to the same conclusion from their behaviour with polarized light, but Pollitzer, in a very pertinent letter to the *Journal of Cutaneous and Genito-Urinary Diseases* (Feb. 1891), pointed out that the former had made no comparative observations on rabbit's coccidia, and that the fact that both molluscum bodies and cornified epithelium transmitted the light would prove little or nothing. The investigations of Török and Tommasoli pointed to the existence of marked differences between molluscum cells and simply cornified or keratinised epithelium. Since molluscum contagiosum is a fairly common disease, it is to be hoped that we shall not have to wait long for a final solution of the problem, and that English dermatologists will thoroughly investigate the matter.

3. *Paget's Disease.—Eczematoid disease of the Breast.*—Since Darier's statement that this disease also was due to coccidia or psorosperms, numerous papers have appeared on it, the chief one being M. Wickham's elaborate and beautifully illustrated monograph (*Thèse de Paris*, 1890). Bowlby (*Med. Chir. Soc.*, 1891), Hutchinson (*ibid.* and *Path. Soc. Trans.*, 1890), Macallum (*Canadian Med. Practitioner*, 1891), and O'Neill (*Brit. Med. Journal*, April 18, 1891) have also recorded the results of their investigations. It is practically admitted that in most cases of inveterate Paget's disease (and it must at once be premised that common eczema may affect the region of the breast in a chronic form, and be non-parasitic, or at any rate non-coccidial) there is a remarkable vacuolation of the cells in the thin layer of epithelium covering the congested area. Bowlby observed this in every one of a considerable number of specimens examined by him; Wickham found it almost, but not quite constantly. Out of five cases examined by the writer, three presented bodies fairly uniform in size

and of an oval shape with sharp contour, (frequently double,) which were very suggestive of coccidia. Macallum, it will be seen from the drawing accompanying his paper, was evidently examining the same bodies. Unfortunately no method of staining at present devised differentiates them conclusively from the nuclei of cells. Vincent's safranine method and Neelsen's carbolic fuchsin stain have been thoroughly tried with no conclusive results. But in the behaviour of scrapings to the action of diluted acetic acid, liquor potassæ and osmic acid, all of which have been especially advocated by Malassez for differentiating the rabbit's coccidia, these bodies show strong resemblances to the latter. Dr. Thin, who has specially investigated the histology of Paget's disease, denies entirely the presence of psorosperms, maintaining that the bodies described are merely altered nuclei. The question must remain undecided as yet; it is very desirable that scrapings from a case should be investigated after Delépine's method, and that besides endeavouring to obtain cultures on nutrient media, prolonged observation on the warm stage should be resorted to. The difficulty here consists in the rarity of the affection. Should it prove that Darier's view is right, we shall then have to discover how the parasite reaches the skin of the mammary organs. It may be remembered that Dr. Radcliffe Crocker has published (with plate in *Path. Trans.*, 1889), a case which might fairly be termed Paget's disease affecting the scrotum, and though in the case of the breast the disease usually starts around and involves extensively the nipple, yet this is not always so; in one instance recorded by the writer, the nipple was wholly unaffected.

The arguments in favour of the bodies found in quite a large number of cases of Paget's disease being some form of coccidia are briefly as follows:—

1. They are fairly uniform in size and as a rule regularly oval, with a sharper outline than have the cell nuclei, and frequently a double contour.

2. When treated with liquor potassæ, dilute acetic acid, or chromate solutions they become differentiated more or less in a similar manner to the coccidia from the rabbit.

3. Their average size ($\frac{1}{1000}$ of an inch or $\frac{1}{39}$ m.m. in length) is about the same as that of the latter.

4. They may be found in great numbers and grouped together,

as one would expect in the case of parasites, and are most easily found in scrapings from the spreading edge of the disease.

5. Against their being degenerated nuclei are the facts that often normal nuclei are seen close to them, and the epithelium in Paget's disease is much thinned as a rule, the horny layer being often lost.

On the other hand the following objections may be raised:—

1. That some of their appearances are very suggestive of altered nuclei.

2. No evidence of true psorosperm formation has been yet forthcoming.

3. That they do not take the fuchsin-strain when treated with Neelsen's solution, as do many of the coccidia in sections of the rabbit's liver. The same holds true with regard to Vincent's method (safranine staining).

4. That culture experiments have hitherto failed. Darier, however, is said to have obtained one successful culture on a moist nutrient medium.

5. *Epitheliomata.*—This branch of the subject must be dismissed in a few words. The supposed coccidia have been observed chiefly by MM. Albarran and Malassez; they appear to occur only in very small numbers, and chiefly in the very centre of nested cell-globes. Borrel (*Archives de Méd. expérimental,* 1890, p. 786), has after a careful investigation come to the conclusion that they are non-parasitic, and the writer has examined a considerable number of cases of epithelioma of various parts with wholly negative results. That coccidia have any part in the direct production of cancer he does not for a moment believe. The bodies figured by Borrel are not quite like those seen in Paget's disease; they chiefly present a well-marked central nucleus, there is an absence of any double contour, and their shape is quite irregular, being often elongated and narrow. An interesting experiment by Mr. D'Arcy Power may be noted here; he found that fragments of tissue taken from a case of Paget's disease and ingrafted led to some irritation and persistent discharge; others taken from ordinary scirrhus had no such effect if antiseptic precautions were observed. Dr. Welch (*Johns Hopkins Hospital Bulletin,* Nov. 1890), has written an elaborate paper on the supposed coccidia of warty epitheliomata, and suggests various theories as to their nature; but his statement that they were usually about the size of a leucocyte or smaller, proves

that, whatever he was examining, it was certainly not the bodies that have been found in Paget's disease, &c. Other observers have made the apparently absurd mistake of confusing the latter with the so-called fuchsin bodies described some little time ago by Dr. Russell, of Edinburgh, as occurring in cancer. Their meaning has been practically wholly discounted by the discovery that they are to be found in sections of normal and abnormal tissues quite apart from any new growth.

The present article has dealt but imperfectly with a difficult subject, and the omission of any reference to some articles on it will perhaps be pardoned, seeing that an effort has been made to include all those of importance. The writer's endeavour has been to present both sides of a question important alike with reference to pathology and treatment, and his hope that further research on the part of dermatologists will shortly lead to more certain conclusions than can be laid down at present.

ADDENDUM.—We understand that the case of *Keratosis Follicularis* referred to in the previous portion of this paper as recorded by Dr. White, of Boston, is not the case observed in New York and described by Dr. Lustgarten and Dr. Bulkley.

ON ANGIOKERATOMA.

BY J. J. PRINGLE, M.B., F.R.C.P.,

Assistant Physician to, and Physician in charge of the Department for Diseases of the Skin at the Middlesex Hospital.

(Continued from last month's Journal.)

SINCE the preceding portion of this paper was published, my attention has been called to an undoubted case of angiokeratoma published by my friend Dr. William Dubreuilh, in the *Annales de la Polyclinique de Bordeaux*[*] under the title of Telangiectatic Warts (Verrues télangiectasiques).

CASE VI.—"Irma S., aged nineteen years, is a chlorotic girl who menstruated, for the first time, at eighteen years of age. The periods appeared four times and then ceased. She easily gets out of breath, and has always been very subject to chilblains, which return every year at the beginning of the cold weather. There is nothing of importance in her hereditary antecedents; her parents are healthy, but she says that her brother, who has chilblains like herself, also presents 'warts' similar to those which she shows me. She is a big, young brunette, of fairly robust appearance. Her hands show a light brown, uniform pigmentation, which is of old standing, and has not increased of late. She has a double 'campodactylia,' *i.e.*, the little finger of each hand is semiflexed at the joint between the first and second phalanges. The skin seems a little hard and thickened, with that velvety appearance and delicately shagreen-like feeling to touch, which is observed at the onset of sclerodermia, and which is due to the exaggerated prominence of the papillæ. There are also present scattered cicatrices from chilblains.

"The eruption is distributed over both surfaces of the hands and fingers, but in greatest abundance over the little fingers and along the ulnar margin of both hands.

"The lesions begin as irregular, red spots, the size varying from that of a pin's head to a lentil. They produce a slight prominence, and the papillæ at their level are manifestly elevated. The redness is not uniform; it is punctate (granitée) and made up of little red specks, the size of the point of a pin, better seen on pressure, which does not make them disappear, although the skin between and

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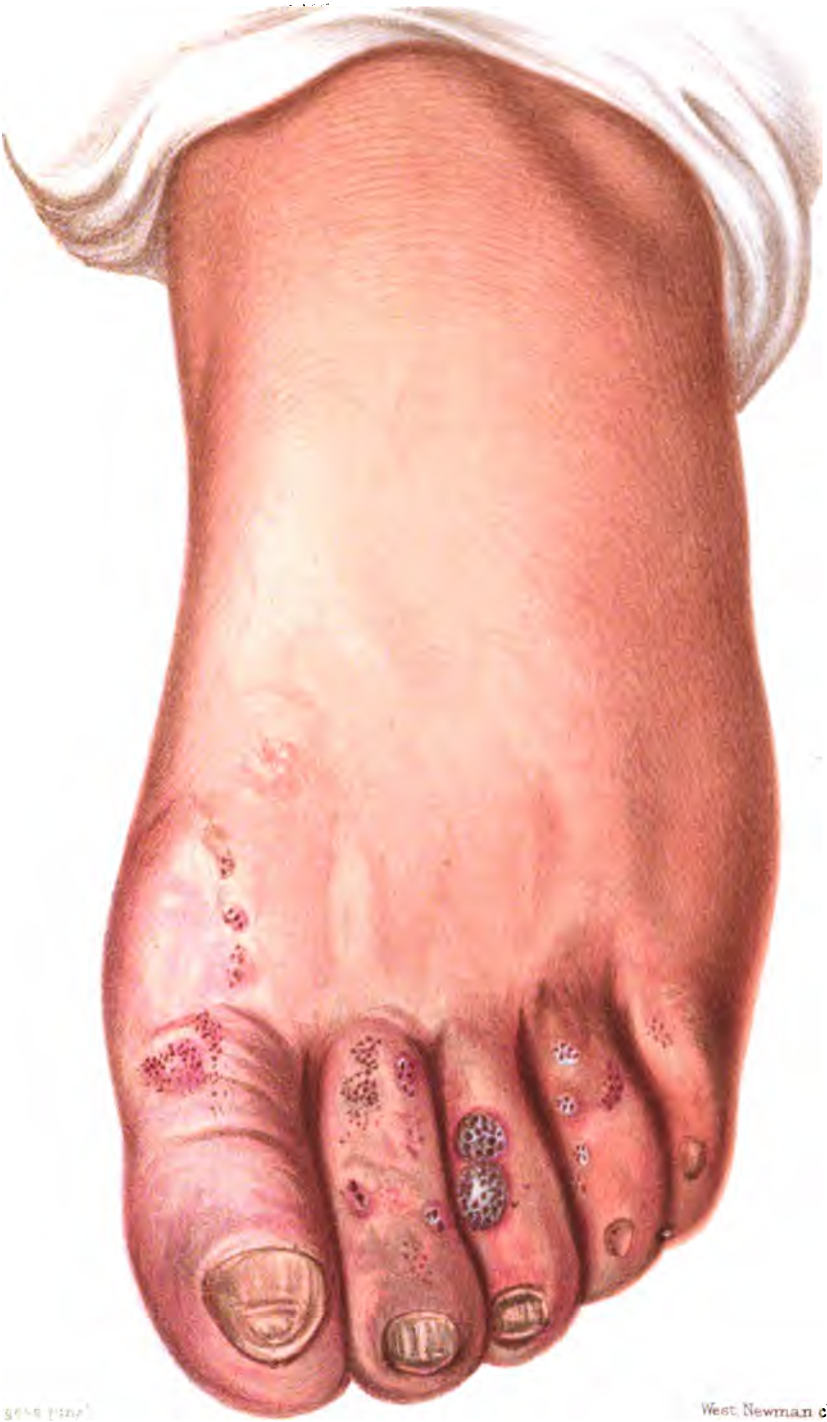
[*] Tome I., Fascic. I., January, 1889, p. 50.



F. Burgess pinx.

West, Newman chr. lith.

D^{r} Pringle's case of
ANGIOKERATOMA.

around them becomes paler. At a more advanced stage the thickness of the epidermis and the prominence of the papillæ is more marked, and the red spots are also more pronounced; they are then almost the size of a poppy seed. If they are pricked a little drop of blood escapes from them.

"Subsequently the prominence becomes more and more accentuated, the lesion assumes the classic aspect of a moderately developed wart, through which black spots the size of a pin's head are visible by transparency. If an attempt is made to enucleate them by cutting through the thickened epidermis, they are found to be formed of a little black, friable mass of dried blood.

"These 'warts' persist a very long time; indeed the patient cannot say that they ever disappear, but throughout the many years, since they made their first appearance, new ones have constantly developed."

The identity in nature of this case with the two cases I have described, cannot for a moment be doubted; indeed the description of Dubreuilh's case might be almost literally applied to mine. It is a matter of regret that Dubreuilh did not make a microscopic examination of some of the warty growths, which would at once have shown that no true papillomata were being dealt with. The clinical history of the case, which he relates with such precision, might, I think, have shown this admirable observer that the "wartiness" was a secondary phenomenon, whereas the telangiectasis was the primary change. For various reasons, then, I cannot accept Dubreuilh's explanation of the disease, when he says "the papillæ, the hypertrophy of which characterizes the wart, are vascular and one can conceive how their vessels may present angiomatous dilatations which would give a special aspect to the wart. The observation which follows (*i.e.*, the case just described) is precisely an instance of warts, in which the capillaries of the papillæ presented little angiomatous dilatations which afterwards became isolated and separated from the circulation, and in which the coagulated blood dried up. I would thus explain the curious affection which I have had the opportunity of observing." If such a condition of things did or could occur in such a common lesion as a wart, surely it would do so with far greater frequency.

Mibelli's case is the first in which the pathological characters are accurately described. It was first published and discussed in full in the *Giornale Italiano delle Malattie Veneree e della Pelle*.* An abstract of the paper, accompanied by a capital chromolithograph, appeared in the "International Atlas of Rare Skin Diseases,"† from which the following account of it is taken:—

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* Fasc.: III. September, 1889. † No. II. 1889.

CASE VII.—"Louise Palazzi, 14 years old, from Rossignano Marittimo (Italy), residing at Siena, in St. Catherine Pension, has had the following affection for some years.

"On the dorsal surface of the fingers, especially on the middle and terminal phalanges, several small transparent tumours are to be seen, the size of a hemp-seed, some almost spherical in shape, others larger and longer. They are lead-coloured, but some are violet or dark red, with still darker superficial points. Their surface is rough and sometimes prickly. These tumours are of the consistence of horn, and are sharply defined from the surrounding skin, which does not manifest the slightest sign of inflammation. Scattered between them are small spots, almost the size of a grain of corn, the centres of which are of a darker red colour than their periphery.

"The epidermis covering them is hard, almost horny, but smooth and without a trace of desquamation. Here and there are seen transition forms between the spots and the tumours described above. The peculiar colour of the spots and tumours disappears completely under pressure. (? J.J.P.) Similar lesions are observed upon the dorsal surface of the toes, but are not so numerous nor so well formed as those on the fingers. There are no constitutional disturbances and no local subjective symptoms. The girl suffers every winter from chilblains, but otherwise is perfectly healthy.

"The cutaneous affection is not congenital; it appears to have developed slowly, and has manifested itself in its present form only within the last five years.

"The patient had been visited frequently for a year and a half, and no noteworthy change in the general appearance of the lesions has been perceived. The chilblains which appeared during the winter were situated only on parts of the skin otherwise healthy, and had no influence on the affection. In winter the fingers were usually cold, and the spots and tumours seemed to be harder, and their colour darker than in summer. Occasionally, however, the presence of small red spots could be seen which resembled telangiectases, and were covered already by a slightly elevated and horny epidermis. The gradual development of these spots into the small tumours was observed."

An excellent description of the histology of the lesions is then given, with which our own observations will be found accurately to agree. To Mibelli also belongs the credit of applying the name to the disease which, for reasons already briefly indicated, I have thought fit to adopt.

In the museum of the Saint Louis Hospital, Paris, there exists an admirable cast of the hands in a case, observed by Monsieur Merklen in 1888, but never published, almost certainly identical in nature with those described.* It is labelled "Telangiectases following upon chilblains," but I regret that I am unable to give any details regarding it, except that the subject was a lad, aged 16. Monsieur Vidal has described a somewhat similar condition resulting from Urticaria, which will be referred to in discussing the pathological relationships and differential diagnosis of Angiokeratoma. The same authority writes me with his usual courtesy that he has observed multiple, small, punctiform telangiectases on the hands of two young girls, who were said to have suffered from chilblains, to which they were consecutive. The skin of the fingers was as if stippled with minute points, the colour of which was red—more or less dark—violet, and almost black. There were also present minute vascular dilatations on the backs of the hands, in the vicinity of the metacarpo-phalangeal articulations. It is much to be regretted that the details of these interesting cases have also not been published.

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* *Catalogue des Moulages Coloriés du Musée de l'Hôpital Saint Louis*, 1889. No. 1885.

(To be continued.)

CLINICAL NOTE.

A CASE OF SECOND INFECTION WITH SYPHILIS.

BY R. GLASGOW PATTESON, M.B. UNIV. DUBLIN,

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CASES of infection for a second time with the virus of syphilis are now sufficiently numerous to cease to excite wonder, but so many important problems are involved in the questions of immunity and preventive inoculation that every case that bears directly on the subject is deserving of careful study and record. That one attack of syphilis does not preclude the possibility of a second, but that in the vast majority of instances a single attack does procure for the victim a future immunity, are facts commonly recognized and taught at the present day; but of the causes of such immunity, or of the conditions under which it is acquired, or fails to develop, we remain profoundly ignorant. Dark and mysterious as are the laws which govern the periods of "latency" and of "tertiary manifestations," it would appear as if the conditions which regulate immunity from subsequent inoculation were more dark and mysterious still. It is in this direction that we now require the most careful observation and inquiry in order that we may round off our knowledge of the natural history of the disease.

CASE.—A. M., aged 27 years, consulted me on December 10, 1889, on account of a skin eruption which he thought was a slight return of the syphilis from which he had previously suffered. Six years before he had been, when resident in Dublin, under the care of an eminent surgeon, as he was suffering from a hard chancre, which was followed after a brief interval by the usual manifestations of syphilis —rash, soreness of throat and hoarseness, ulcerations on the palate, both hard and soft, and on the tonsil, indolent enlargements of glands, and slight falling out of hair. He was treated by inunction and pills for nearly a year with occasional intervals, and during all this time he suffered from relapsing attacks of spots, especially on the face, of ulcerations and mucous patches in the mouth, and of hoarseness and pain on swallowing; but at the end of that time he was pronounced cured, though he was told he had contracted a virulent form of the disease, and should be careful as to his future life. This good advice was, however, unheeded, and for five years he lived a dissolute and roving life. During this period he contracted gonorrhœa four or five times, was most licentious and unsteady in his habits, and while abroad was twice at death's door with acute pleuro-pneumonia of the right lung. Notwithstanding all this he enjoyed fairly good health, and was absolutely free during all these years from the slightest reminder of the syphilis from which he had previously suffered.

In the spring of 1889 he returned to this country and to his former unhappy habits, and pursued for some time unimpaired the even tenor of his way. But Nemesis was not to be denied. In the fall of the year he got badly beaten in a drunken row and was laid up for some weeks in hospital with hæmatemesis. While there an indolent swelling slowly formed in the groin, and after some time underwent softening, and had to be opened. No trace of a chancre or of any gonorrhœal infection could be detected by the surgeon under whose charge he was. Shortly before leaving the hospital, about the end of September, he noticed a few spots on both his forearms, and one or two on each side of the chest, but did not attach any importance to them until a little later, when some larger spots appeared in the groins and on the legs. For these he dosed himself with an old prescription containing potassium iodide, still confident that it was only "the memory of the past." No result followed this treatment.

When he came to me the following month, I found the trunk, especially the sides of the chest, the forearms, and the upper and outer aspects of the thighs covered in large patches with a perfectly symmetrical rose, and in part, copper-coloured rash, papulo-squamous in type, which presented all the characters of a secondary syphilitic roseola. There was no trace of a chancre or scar on the penis or any other part, and he strongly protested against the possibility of any such being present. On examining the throat, a deep sinuous ulcer was observed on the left anterior pillar of the fauces, together with a smaller but deep ulcer on the left tonsil, and numerous "snail-tracks" on the posterior wall of the pharynx. There was some huskiness of voice, and he complained of a constant "hawking" in the throat, and on laryngeal examination the ary-epiglottic folds and the vocal cords were found to be congested and somewhat swollen. On expressing a very strong opinion as to his case, he at last owned the soft impeachment, and pleaded guilty to the usual "single occasion." No glandular enlargement could be felt in any part. As the patient was decidedly anæmic, he was put on a tonic and nutritive treatment, and mercury was given by inunction so as to produce rapid salivation. This was easily accomplished, and at the end of a week I find the following note: "Gums soft and spongy; feels 'tinny' taste in mouth. Rash completely disappeared from arms, sides of trunk—where it was most extensive—and only the scabbed spots persisting. Ulcer on left anterior pillar has healed, leaving deep scar; right tonsillar ulcer nearly healed—reduced to deep groove. The congestion and swelling of the larynx are less; voice clearer and the 'hawking' ceased." From this date he rapidly improved in health, gaining in strength and weight, the lesions all healed rapidly, and no further outbreaks made themselves manifest. As he was again leaving this country, a voyage in a sailing vessel was recommended, as it would occupy nearly three months, and give him an opportunity to recruit fully before starting afresh. Since then his health has remained good, and now, more than sixteen months since his departure, there has been no sign of recurrence.

Cases in which the symptoms of syphilis have developed without the formation of a primary chancre are not by any means unknown, and one case has come under my personal observation, so that the absence of an ulcer with initial sclerosis in this case does not preclude its being enrolled in the category of genuine syphilitic infection. Indeed, it would seem as if a small quantity of the virus had gained entrance through some unnoticed crack or surface lesion without causing any local disturbance, and passing upwards along the lymph-path, had in the nearest gland given rise to the slowly-enlarging and tardily suppurating bubo which preceded by some weeks the outbreak of any constitutional symptoms. However that may be, that a true reinfection occurred in this case is shown by a very brief consideration of the following facts:—

1. The long period of immunity—five years—from any late secondary or tertiary manifestations, and this notwithstanding that often during this period the patient was broken down in health erious illness and vice.

2. The features of the eruption as regards distribution, symmetry, colour, and general characteristics.

3. The nature of the throat and mouth lesions, which were clearly those of an early secondary stage.

4. The refractoriness of the disease to potassium iodide, and the rapid subsidence of all the symptoms under the free use of mercury.

Assuming then that a true second infection is proven, it remains to consider what causes, if any are determinable, led to the non-development of immunity in this case, or what factors predisposed to a second absorption of contagion. At first sight it seems a plausible theory that those cases in which the early manifestations are slight in degree, and in which on that account treatment is carelessly carried out and early abandoned, should prove to be those in which a liability to second infection is far and away greatest. But the tendency of recorded cases is to prove the converse, and the above case is no exception to the rule. It was pronounced to be of a "virulent type" by a competent authority, and the long persistence of the recurrent symptoms under treatment proves that this was no over-estimate of the condition. Further, the treatment was persisted in for nearly a year, and for five years after there was no recurrence. We may, therefore, conclude that the treatment was sufficiently prolonged, and that the verdict of "cure" was justified, and that again in this case inadequacy of treatment cannot be put forward as a plea. Viewed from the other standpoint, we must fall back on a "constitutional predisposition," which, affording an especially favourable nidus for the virus of the disease, accounted thus for the severity of its nature and for its refractoriness to treatment. Then the dilemma of its complete disappearance and apparent cure for over five years stares us in the face. Apart from this, do we know what we mean by a "constitutional predisposition"? Is it not a cloak under which to hide imperfect conceptions of morbid processes? Pathology is daily shattering the idols of an older generation, and just as the fetish of a "scrofulous diathesis" has been dethroned and disowned by recent investigation and experiment, so we may hope the near future will add many another superstition to the list. It is too soon to estimate the value of Metschnikoff's views on immunity; what we require meanwhile is careful observation of any facts that help to throw light on a subject admittedly obscure.

VIENNA LETTER.

BY EDWARD SCHIFF, M.D.,

Docent in the University of Vienna.

IV.

THE meetings of the Dermatological Society, being few and far between during the summer months, afford but little material to report upon. One novelty, however, can be mentioned which will interest not only dermatologists but all medical circles. We learn on good authority that it is highly probable that dermatology and syphilis will in a short time be included among the compulsory subjects for the pass-examinations in the Austrian Universities.

This innovation, which is of the greatest importance in its bearing on the whole medical curriculum, will be received with mixed feelings by all those directly affected by it, *i.e.*, the candidates for examination; especially as there is at the present moment a sword of *Damocles* hanging over the heads of the coming generation of medical men in the shape of an examination in Hygiene which has been suggested from many quarters. To raise dermatology and syphilis to the rank of compulsory subjects was, however, a proposition which could no longer be set aside by those wishing to see the rising generation of doctors as completely educated as possible.

The general practitioner, especially the country doctor, who for the most part is dependent on his own resources, will be reminded at every turn of the importance of these two branches of medical science, if he has not occupied himself, at least as an amateur, with some dermatology and syphilidology.

Can it possibly be necessary to demonstrate to any one the importance of a closer acquaintance with these two subjects? "There is nothing so difficult to prove as that which is evident," says *Pascal*. It is now sufficiently known that some internal diseases, especially those affecting the nervous system, and infectious diseases, may acquire a local expression in the form of changes in the skin. Leloir's remark that the skin is, so to speak, a mirror of the nerve system, is something more than a clever *aperçu*, if one only reflects on the dermato-neuroses. How often are the latter the first precursors of grave complications of the cerebro-spinal system, which manifest themselves in their whole severity perhaps only after a lengthy period by other phenomena! It is also universally known that some infectious skin diseases may become epidemic, and consequently a public calamity, if their spread be not duly arrested. We would remind our readers, for instance, of the fact of the not infrequent occurrence of an epidemic of ringworm in England and France. We need not lay any stress on the great responsibility to the public which the medical attendant, under such circumstances, has to bear. One could hardly answer for it that the young physician, whom we occasionally see dropping in casually to the dermatological class, as though it were one of secondary importance, would be able to diagnose many dermatoses, not to mention those which can only be recognized by the most experienced eye, owing to their protean manifestations.

With regard to syphilis, one would, *à priori*, suppose that every physician who looks earnestly upon the duties of his profession would naturally have acquired the necessary knowledge to combat a disease which is just as common as it is terrible, infectious, and hereditary. However much value we attach to measures of the Sanitary Police, which aim at the prevention of the dangers arising from syphilis, and even if we can at least obtain, by a severe and strict control, that prostitution does not become an immeasurable source of social mischief and misery, we can, in our opinion, never secure a radical regulation of prostitution without the powerful co-operation of thoroughly competent physicians, and especially of the general practitioner. Professor Sigmund, who was alike distinguished for his humanity as for profound knowledge of his profession, lamented once, with his well-known *bonhomie*, that, for some years, certain fine examples of tertiary syphilis could only exceptionally be met with in Vienna. Unfortunately, however, it not rarely happens that we see old and recent syphilides, which have not been diagnosed and treated as such by the general practitioner. By saying this we do not pretend to add any new information, but rather to emphasize what must be sooner or later reformed. We can readily explain, by the history of reform in medical studies at the University of this town, why, till now, all attempts to obtain for dermatology and syphilis the rank due to them in medical instruction have proved fruitless.

Apart from the fact that there were many points to be taken into account by the professors with regard to their method of instruction, the students themselves were well aware that an entire medical curriculum without dermatology and syphilidology, and without the study of mental and aural affections, could only be rudimentary. We naturally do not suppose for a moment that at a time like the present, when the tendency is to further division of labour, that a student can choose a speciality, in which case his whole energy would have to be devoted to this one subject, and his knowledge of the rest would necessarily be merely superficial. The general practitioner, however, gives up two important props if he neglects the study of two important branches of pathology as represented by dermatology and syphilis. This would have to be remedied sooner or later.

The curriculum of our medical school has been systematically enlarged since about 1870.

The very first attempts at reform show a fundamental change in the course of studies. The previously separated and almost isolated branches of medicine were united. The word was passed round that the doctor must have an eye to the whole field of medicine; and the different *Patrone*, *Magisters*, or whatever they may have been called, were obliged to make room for doctors who were not contented with a slight knowledge of surgery, or satisfied with an infinitesimally small fragment of medicine, but, on the contrary, had even studied ophthalmology and gynæcology. The task seemed almost insurmountable by individual effort; but now were introduced two further subjects for examination, practical physiology and medical physics, not to mention the fact that the requirements in the natural history examination became much more severe. This important reform will, at no distant date, be rendered complete by the order that also dermatology and syphilis must be properly studied.

Thus, we see, an evolution has been going on during the last twenty years, an arrest in which was more apparent than real. By now raising these two branches of study to their proper position, the

Vienna school, which has given so often the first impulse to improvements in the study of medicine, has simply acted in accordance with its traditions. Just as it has frequently taken the initiative in important questions, it may be confidently expected that this innovation will find sympathy and emulation at other universities. In the first place the public will gain by this progress, because to them it cannot be a matter of indifference to what extent their medical attendants are educated. But also the standard of these branches, and no less the position of their representatives, will be raised by a more thorough study of them. Honour is due to all those who have contributed to the realization of this long-entertained wish of dermatologists; they have contributed not only to the glory of the Vienna school, but also to the advancement of social welfare. That these endeavours have been crowned with success must, without doubt, be ascribed to the liberal spirit of our present minister of Public Instruction, who takes every point into consideration which appears likely to be of service to the progress of the institutions confided to his care.

As stated at the commencement, there are no particularly interesting dermatological cases to report. The scientific work of the Dermatological Society practically stood still under the influence of Koch's discovery. Abstracts, literary reports and essays formed the residuum of the researches made regarding that sensational topic.

Amongst the publications regarding tuberculin we must mention in the first place the elaborate work of Professor Kaposi which has just appeared under the title of, "On the Treatment of Lupus, Lepra, and other Skin Diseases, by means of Koch's Lymph."* With the greatest objectivity, Kaposi undertook therapeutical experiments with the new substance. During the space of three and a half months he treated methodically fifty lupus cases, by means of injections of tuberculin. He showed in a graphic manner, and in tabular form, the whole course of development of the phenomena that took place under Koch's treatment.

Kaposi's judgment on the value of tuberculin can be expressed in a few words, as follows:—

Koch's lymph is no curative remedy for lupus, but only an agent similar to all other remedies and ways of procedure, with which one by a judicious selection can always secure fine results, and among which *Kochin* may be classed. Kaposi recommends the employment of tuberculin in cases of recent freely proliferating and widely-spreading or greatly disseminated lupus; " for there is," says Kaposi, "no other known agent which, like this, injected into any part of the surface, attacks all the foci of lupus, causing them to inflame and flatten down. This is such an advantage gained, that we should do wrongly to discard it, for we succeed in this way in improving all the lupus foci to a considerable degree . . . . It is still a subject for our further consideration and investigation, in what way and to what extent we can, by systematically substituting or combining the advantages of the Koch treatment with other already known and well-tried methods, obtain real advance in the therapeutics of lupus."

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* "Ueber dei Behandlung von Lupus, Lepra und anderen Hautkraukheiten mittelst Kochischer Lymphe."

From the above remarks we see the view confirmed, that though R. Koch with his discovery, by which it was hoped that tuberculosis would be stamped out, has not given us a really curative agent, yet he has added one most valuable stone to the edifice of scientific medicine.

In a quieter way, but not with less real interest, some investigations with Liebreich's injection of Cantharidin (*Cantharidinsäures Kali*) were also made here, in cases of lupus and similar dermatoses. Its influence upon the lupus foci is unmistakable. The guiding idea of Liebreich is so far related with Koch's combination, that both aim at producing local reaction by means of general absorption of the remedy into the system. As a fact we can prove a change of the lupus tissue to have been caused by cantharidin. It would, however, be premature to pronounce, at the present period of our inquiries, a final opinion on the curative value of Liebreich's remedy.

In conclusion, we must call our readers' attention, with regard to the therapeutics of skin diseases, to an increase in the number of our stock of remedies, viz.: *Linimentum exsiccans*, introduced by Professor Pick, of Prague, consisting of five parts of tragacanth, two of glycerine, in one hundred parts of water. As this liniment, when made up with heat, is at the same time antiseptic, it can be used with benefit as a protective coating and as a prophylactic.

GERMAN DERMATOLOGICAL ASSOCIATION.

PROGRAMME OF THE CONGRESS TO BE HELD AT LEIPZIG ON SEPTEMBER 17TH, 18TH AND 19TH, 1891.

THE MEETINGS will be held daily from 9–12 A.M., and from 2–5 P.M. in *the Lecture-room of the Anatomical Institute, Liebich Strasse, No. 13.* The Bureau will be open in the Anatomical Institute on Wednesday, September 16th, from 2–8 P.M., on the other days from 8.30 A.M. to 1 P.M., and from 2–6 P.M.

On WEDNESDAY, SEPTEMBER 16th, at 8 P.M.—Reception of the Members by Bonorand-Rosenthal.

On THURSDAY, SEPTEMBER 17th, at 6 P.M.—General Dinner in the Hall of the Kaufmännischen Verein, Schulstrasse.

On FRIDAY, SEPTEMBER 18th, at 7 P.M.—Visit to the Representation in the New Theatre, Augustus platz.

On SATURDAY EVENING, SEPTEMBER 19th.—Informal Meeting at Bonorand-Rosenthal's.

Members of the Congress are urgently requested to communicate *as soon as possible* with Privat-docent Dr. Lesser, Harkortstrasse 10, with regard to securing apartments beforehand.

ORDERS OF THE DAY.

1ST DAY.—Discussion on the Treatment of Tubercular Affections of the Skin and Mucous Membrane with Tuberculin, introduced by Professor Kaposi. Communications on the subject are announced by Messrs. Lewin, Neisser, Neumann, Pick, Doutrelepont, Schwimmer. In addition (1) Professor Landerer will lecture on the Treatment of Lupus, and (2) Dr. Jadassohn will give a Demonstration of Unna's "Plasma-cells" in Lupus and in other Tissues.

2ND DAY.—Discussion on the Pathology and Treatment of Eczema. Reporter, Professor Neisser; Co-reporter, Dr. Veiel. In addition (1) Professor Pick will make a short communication—title not given—

and (2) Dr. Blaschko will discuss the Etiology and Pathogenesis of Tissue-Eczema.

3RD DAY.—As far as the time not taken up by the discussion of these principal themes will permit, will be occupied by Free Discourses and Demonstrations, of which notice has already been received of the following:—

1. Professor Neumann: Syphilis and Heredity.

2. Professor Lewin: (*a*) On the Syphilitic Diseases of the Circumvallate Papillæ and Lingual Glands; (*b*) On an Undescribed Syphilitic Disease of the Skin; (*c*) Statistics as to the frequency of the various Gummatous Processes after different Methods of treatment.

3. Dr. Ehrmann: (*a*) Clinical Note on Syphilitic Peripheral Neuritis; (*b*) On the Histological Changes in the Skin during and after the Evolution of the flat Condyloma; (*c*) On the Signification of Herxheimer's Spirals.

4. Professor Pick: Is Molluscum Contagiosum contagious?

5. Professor Neisser: On Psorospermoses.

6. Professor Schwimmer: Universal Psorospermosis, with Demonstrations.

7. Professor Wolff: Title of paper not announced.

8. Dr. Arning: Demonstration of a case of Pseudoleukæmia with Multiple Tumours of Skin, Mucous Membrane and Muscle.

9. Dr. Spalteholz: The Vascular Territories of the Human Skin.

10. Dr. Lesser: Demonstration of Patients.

11. Dr. Galewsky: On Pityriasis rubra pilaris.

12. Dr. Jadassohn: On Atrophia maculosa cutis, with Demonstration.

13. Dr. Neuberger: On so-called Pemphigus neuroticus.

14. Dr. Touton: On Acne necrotica, with Demonstrations.

15. Professor Caspary: On Erythema Scarlatiniforme, a contribution to the diagnosis of Scarlet Fever.

16. Professor Doutrelepont: On the Pathology and Treatment of Leprosy, with microscopic Demonstrations.

17. Dr. Winternitz: Experiments on Absorption by the Skin.

18. Dr. Joseph: On a further Observation of Pseudoleukæmia Cutis, with microscopical Demonstrations.

19. Dr. Ledermann: On the Internal Employment of Methylene Blue in Bullous Affections.

20. Dr. Friedheim: Demonstrations.

21. Dr. Kromayer: The Intimate Structure of the Protoplasm of the Prickle-cell.

22. Dr. Hammer: On the Influence of Light on the Skin.

23. Dr. Barton: On the Treatment of Uterine Gonorrhœa with Chloride of Zinc Stick.

24. Dr. Jacobi: On the Pathology and Pathogenesis of Lichen Scrofulosorum.

25. Dr. Friedheim: On the Relationship of Syphilis with Disorders of the Nervous System.

26. Dr. O. Rosenthal: Microscopic Demonstrations of Lupus Erythematodes.

The circulars are signed by Professor Neisser, Breslau, Museum Strasse 11, Chief Secretary, Professor Lipp of Graz, and Dr. Lesser, Leipzig, Harkortstrasse 10.

AMERICAN DERMATOLOGICAL ASSOCIATION.

PROGRAMME OF THE FIFTEENTH ANNUAL MEETING, TO BE HELD AT THE SHOREHAM HOTEL, WASHINGTON, D.C., September 22nd, 23rd, 24th, and 25th, 1891.

OFFICERS FOR 1891.—*President*, F. B. Greenough, M.D., of Boston; *Vice-President*, L. N. Denslow, M.D., of St. Paul. *Secretary and Treasurer*, George Thomas Jackson, M.D., of New York.

FIRST DAY, TUESDAY, SEPTEMBER 22nd, 1891.

BUSINESS MEETING (with closed doors) at 9.30 A.M.—Report of Council; Nomination of Officers for the ensuing year; Appointment of Auditing Committee; Proposals for Active and Honorary Membership; Miscellaneous Business.

MORNING SESSION at 10.30 o'clock.—Report of Commitee on Nomenclature, and discussion thereon.

Papers.—1. Dermatitis Hæmostatica. Dr. H. G. Klotz.

2. A Case of Lupus Erythematosus with Fatal Complications. Dr. W. A. Hardaway.

3. Report of a Case of Universal Erythema Multiforme, with coloured portrait and specimen. Dr. L. A. Duhring.

4. An Unusual Case of Sarcoma involving the Skin of the Arm: Amputation: Recovery. Dr. F. J. Shepherd.

5. Multiple Sarcomata. History of a Case showing Modification, and Amelioration of Symptoms with large Doses of Arsenic. Dr. S. Sherwell.

6. The Hypodermic use of Hydrargyrum formamidatum in Syphilis. Dr. R. B. Morison.

SECOND DAY, WEDNESDAY, SEPTEMBER 23rd, 1891.

BUSINESS MEETING (with closed doors) at 9.30 A.M.—Report of Treasurer and Auditing Committee; Election of Officers; Election of Active and Honorary Members; Selection of Time and Place of next Meeting; Miscellaneous Business.

MORNING SESSION at 10.30 o'clock.—Report of Committee on Statistics.

Papers.—Discussion on Tuberculosis of the Skin:—

7. Its Clinical Aspects and Relations. Dr. J. C. White.

8. Its Pathology. Dr. J. T. Bowen.

9. Its Treatment. Dr. G. H. Fox.

10. Thirteen Cases of Tuberculosis of the Skin, with their Treatment. Dr. J. S. Howe.

11. A Case of Lichen Scrofulosorum. Dr. J. Grindon.

12. Notes of a Visit to the Leper Hospital at San Remo, Italy, with Photographs. Dr. L. A. Duhring.

13. Retarded Hereditary Syphilis. Dr. R. B. Morison.

THIRD DAY, THURSDAY, SEPTEMBER 24th, 1891.

MORNING SESSION at 9.30 o'clock.

Papers.—14. The Treatment of Alopecia Areata. Dr. P. A. Morrow.

15. A Therapeutic Note on Alopecia Areata. Dr. L. D. Bulkley.

16. Morphia Atrophica of Wilson. Dr. R. W. Taylor.

17. The Treatment of Pruritus. Dr. E. B. Bronson.

18. Prairie Itch. Dr. L. N. Denslow.

19. Diseases of the Skin associated with Derangement of the Nervous System. Dr. W. T. Corlett.

20. Treatment of Chronic Ringworm in an Institution for Boys. Dr. L. A. Duhring.

21. Epilation; its range of usefulness as a Dermato-therapeutic Measure. Dr. J. Zeisler.

FOURTH DAY, FRIDAY, SEPTEMBER 25th, 1891.

MORNING SESSION at 9.30 o'clock.

Papers.—22. Notes of a case of Acute Dermatitis Exfoliativa. Dr. J. E. Graham.

23. Notes relative to Pemphigus Vegetans. Dr. J. N. Hyde.

24. A Study of Mycosis Fungoides, with Report of a Case. Drs. H. W. Stelwagon and H. Leffingwell Hatch.

25. Lymphangioma Circumscriptum, with Report of a Case. Dr. M. B. Hartzell.

26. Remarks on Carbuncle, with Report of a Peculiar Case. Dr. H. G. Klotz.

27. Note on Erythema et Nævus Nuchæ. Dr. C. W. Allen.

28. A Case of Lichen Ruber. Dr. J. Grindon.

29. The Personal Equation in Dermatology. Dr. L. D. Bulkley.

Retirement of old Officers and Induction of those newly elected.

CURRENT LITERATURE.

ACNITIS. On a special Variety of Generalized and Disseminated Folliculitis and Perifolliculitis. **BARTHÉLEMY.** (*Annales de Derm. et de Syph.*, January, 1891, p. 1.)

The group of diseases named Folliculites is as extensive as vague: it includes dissimilar diseases, some of which had better be removed to other groups.

Two cases which fall into this group have been made the object of comprehensive study by MM. Barthélemy, Darier, Jacquet and Saint-Germain.

The cause of "*Acnitis*" (as M. Barthélemy calls the disease) is obscure. It began in these two patients rather suddenly, while in good health, without disturbance of sensation or fever, and appeared in the temples, forehead and front of the scalp, as several small subcutaneous nodules.

These hard oval nodules gradually enlarge from the size of a millet-seed to that of a small pea. In eight days they are completely developed, without any lesion of the skin. Incised at this period, a drop of pure creamy pus exudes. If they be allowed to take their course, they soften, and redness is noticed for the first time. Soon a drop of pus oozes from the centre, and two to four days later sanguinolent serum, which, drying, forms a crust. At this period the disease presents quite the aspect of a deep-seated acne.

As the nodules disappear they have a depressed pigmented cicatrix. The average duration of a nodule is about a month; but they may abort at an early stage, or persist for more than two months in one of their stages.

Besides the head and face—their favourite locality—the neck, trunk, loins, axillæ, arms, hands, and feet may become affected.

The nodules appear in successive groups of about a dozen, every two or four days, during the active period of the disease; during the retrogressive period, in groups of two or three every week or fortnight.

The disease is of long duration, generally about ten to twelve months. The patients became anæmic, and were cured only after their general condition was improved by tonics. Mercury and the antiseptics appeared to have no effect on the local condition.

Histological examination.—The disease consists in the formation of new tissue in the derma around the hair-follicles. The new tissue consists of:—1. Round lymphoid, embryonic cells, which are especially abundant towards the margin of the neoplasm. 2. Epithelioid cells, larger, with polygonal granular protoplasm enclosing one or several nuclei. 3. Giant cells of all sizes, some (typical) with granular centre and corona of nuclei, others smaller (resembling the epithelioid cells), with several non-peripheral nuclei (*i.e.*, giant cells not fully developed).

Both varieties are abundant. Giant-cell masses also occur.

In advanced stages the follicle is partly destroyed. The hair falls out, its epithelial sheaths are in part destroyed by ulceration; in their place is a little cavity, filled with a sort of puriform matter composed of dead and disintegrating cells. This cavity is limited by the tissue of the neoplasm, on the one side, and by the fragments of persisting epithelial sheaths.

No trace of the sebaceous gland was found in the sections of old nodules. Examination of the early stages of the nodules showed that the process began as a perifolliculitis. It may be said, then, the pathology of this disease is a perifolliculitis of special characters: the peculiar arrangement of the new cells—of which many are epithelioid—and the abundant presence of giant cells makes us suspect that some infective cause (possibly tubercular) gives rise to a subacute non-suppurative reaction. But staining by Kühne's or Weigert's method failed to reveal any microbes. The search for Koch's bacilli likewise gave negative results.

Differential diagnosis.--It is likely to be confounded with indurated acne. Acnitis affects the upper part of the skin only secondarily, and does not pass through the stages of papule, pustule, and finally indurated nodules; on the contrary the folliculitis of acnitis is hard at the beginning, and softens in its later stages, and is perfectly painless. (This latter condition distinguishes it from furuncles and ecthyma.) The positions of acnitis on the scalp, trunk, feet and hands, fingers and ears, differ decidedly from those of acne.

But the most important differential diagnosis is not with acne but with other varieties of generalized folliculitis. Two observations of these folliculites have shown M. Barthélemy that their mode of distribution is different from that of acnitis.

Folliclis is a second variety of disseminated and generalized, but agminated folliculitis.—This variety is chronic, and may relapse. Although its aspect and distribution are like those of syphilides, it is totally distinct from them.

The folliculitis is situated in the dermis, is flattened, papular at first, afterwards pustular, frequently umbilicated, and ends always in a brown or black cicatrix. The lesions do not suppurate freely. It seems to arise exactly and exclusively within the follicles (*i.e.*, their intra-dermic portions). Because of this *folliphilie*, M. Barthélemy proposes the name *folliclis.*

Histology.—The lesions consist of an irregular neoplastic nodule of embryonic elements, which are younger and more active at the periphery where it surrounds a sebaceous follicle, or several bunches of sudoriferous glands and arterioles, but at the centre, where there are only few cells, badly coloured and granular connective tissue fibres, its transparency is more or less lost. There are no giant cells and no microbes.

Further, there exist some epithelial alterations.

In one of the cases examined, the lesion had developed around a follicle containing in its interior an old displaced hair. In the other case the presence of hairs was noted emanating from a diverticulum, an abnormal offshoot from the principal follicle. These anomalies may (in people predisposed) constitute a sort of irritatory thorn (*épine*) which evokes inflammatory reaction.

Hence the lesion of folliclis consists of a perifolliculitis provoked by malformation of hair, producing secondarily vitreous degeneration of the epithelium, and probably the necrosis or elimination of the vascular territory affected. This hypothesis appears to agree with the symmetry, the extreme chronicity of the lesions and the formation of a central depressed cicatrix. It also explains the complete inefficacy of antiseptic treatment.

LESLIE ROBERTS.

TWO CASES OF INTRA-UTERINE ICHTHYOSIS. George T. Elliot, M.D. (*Journ. of Cut. and Genito-Urin. Diseases*, Jan., 1891, p. 20.)

The term "Ichthyosis" should not be confined to that developed after birth, but should also include that acquired before birth. The after-birth and before-birth varieties are the same in their essential conditions (Caspary).

Some infants born with this abnormality of skin are not in a fit condition to live, and die in a few hours after birth; others live, the ichthyosis persisting; others, again, live to get healthy skins.

Antecedent history of Dr. Elliot's two cases.—Mother was a perfectly healthy Irishwoman with no past disease of the skin. Father was a German, with no history of any disease of the skin. One of his daughters, out of several healthy children by a former wife, had had a hyperkeratosis all her life, limited to the palmar surfaces of the fingers. The cases now described are two daughters by the present healthy wife. They have no other children. These sisters, A. and W., were born at the full term, without accident to themselves or the mother.

History and state of patients.—A. at birth was covered with an unusual quantity of *vernix caseosa.* Her entire skin then had a brown varnished appearance, was divided into different sized areas by fissures, and was smooth, not scaly. The child grew to the age of three, with persisting ichthyosis. From that age the skin on face and upper and lower extremities began to improve till it became smooth, soft, and perfectly natural at the age of four and a half; but on the trunk it remained ichthyotic.

She was not deformed, or blighted in body or mind. She never perspired except slightly on the extremities and upper lip.

The skin closely examined showed lanugo hairs on the extremities; no scales anywhere; not a trace of *keratosis pilaris.* The scalp was covered with a thick, uniform mass of horny epidermis of a brownish colour, not desquamating but unctuous, and capable of separation in large strips, beneath which could be seen a surface neither reddened nor moist. The hair grew firmly and luxuriantly. The chest was covered partially, and the abdomen completely, by a continuous layer of this thickened epidermis, varying in thickness from one to four lines. It was thinnest on the back, thickest in the axilla, everywhere divided into polygonal areas by fissures. The masses composing these areas could be detached by mechanical force; on their under surface little horny projections could be seen. The surface exposed by their removal appeared natural.

There was no microscopical examination of the skin, only of the lamellæ, which consisted of horny cells, with fatty matter, when they had been situated on the scalp.

The child is very susceptible of changes of temperature. After an attack of measles, ichthyosis like that of the adult appeared in previously healthy portions of skin. She recovered under salicylic acid ointment. Later the condition re-appeared after a severe cold with fever, and again her skin recovered its normal appearance.

W., the younger sister, was in all respects similar to A.

Leslie Roberts.

THE BRITISH

JOURNAL OF DERMATOLOGY.

OCTOBER, 1891.

THE ANATOMY OF CHEIRO-POMPHOLYX.

BY A. WINKELRIED WILLIAMS, M.B., C.M. (EDIN.).

(From Dr. Unna's Clinic in Hamburg.)

CHEIRO-POMPHOLYX was originally described in 1882 by Tilbury Fox under the name of Dysidrosis, as he considered it to be primarily an affection of the sudoriparous apparatus. Hutchinson recognized the disease about the same time, and described it as a kind of Pemphigus. Robinson, who arrived at a similar conclusion as Hutchinson, called it Pompholyx.

The explanation of the disease, as given by Tilbury Fox, has been accepted by many writers, especially in Britain. Briefly stated, it is as follows:

1. A faulty innervation of the sweat glands results in a markedly increased secretion of sweat.

2. Pressure of this secretion causes an obliteration of the lumen of the upper coils of the sweat ducts. The sweat collects in the duct below and forms a vesicle deep in the epidermis.

The anatomy of the disease has been investigated by Fox and Crocker, who found, in many cases, the vesicles directly in the line of the sweat ducts. Crocker, in a subsequent article, described the sweat ducts in some instances as directly leaving the vesicles; he also found vesicles between the ducts. Santi, in the laboratory of Unna, examined many cases, and in none of his sections did he find any connection between the sweat-pores and the vesicles. Robinson also has failed to find this connection.

Recently, whilst working in Dr. Unna's laboratory, I have had the opportunity of examining many sections of this disease in its milder form, from pieces of skin excised from my own hands. The clinical features I will briefly state, in order to show that the disease corresponded to the descriptions usually given.

1. Depression of a nervous constitution by diminished out-door exercise and increased amount of study.

2. A vesicular eruption on the sides of the fingers and thumbs, and nowhere else. The eruption comes out suddenly, and is accompanied by itching, generally slight. It consists of minute vesicles imbedded in the epidermis, which resemble sago grains, increase slightly in size and become agglomerated.

3. After lasting about a week or ten days the vesicles dry up without rupture or exudation. A slight desquamation follows, leaving a surface rather more highly sensitive and occasionally a little redder than the skin around.

4. The hands are generally hyperidrotic.

HISTOLOGICAL EXAMINATION.—A piece of skin was excised from the side of the left thumb, hardened in alcohol, imbedded in celloidin and cut with a Jung microtome. Each five sections were kept in separate vessels, variously stained and examined serially.

Attention was especially paid to the relation of the sweat-pores to the vesicles. In the one hundred and eight sections examined in no case was there any connection between them; seventy-four of the sections showed both ducts and vesicles; some as many as three or four of each; twenty-seven included vesicles but no pores, and seven only pores. Several sections when viewed singly showed an appearance which might have led one to the conclusion that the vesicles were dilatations of the sweat ducts. In these, portions of a duct could be seen coiling in the epithelium both above and below the vesicle. This conclusion, however, was disproved by an examination of those sections which were cut immediately before or immediately after the doubtful ones, for in them the remainder of the duct could be traced out in its entirety, either winding behind or to the side of the vesicle, and every coil was absolutely free from any communication with the vesicular cavity. In the majority of cases the sweat-pores and ducts were some distance from the vesicles.

The next point examined was the contents of the vesicles and the lymph spaces between the adjoining rete cells. As regards fibrin, sections were stained in various parts of the series with Weigert's Gentian Violet, and treated with Lugol's solution. These sections showed without exception both in the rete and the immediately subjacent papillary layer Herxheimers spirals (*i.e.* fibrin in the lymph spaces) in great numbers near the vesicles, whilst in the more distant parts of the section they were either not to be seen or else only in very small numbers. So certainly was this relation established, that in any section where a number of spirals were seen and no vesicle near, one could be quite sure of finding a vesicle or the dilatation of spaces indicating vesicular formation, a little further on in that position. Fibrin was also found in the vesicles. Moreover, in the papillary layer of the corium there was dilatation of the capillaries and lymph spaces and some amount of leucocyte exudation, and this was always more marked in the neighbourhood of the vesicles. Leucocytes were also found between the rete cells and again more abundantly in the parts below and around the vesicles. The vesicles contained leucocytes. The above described appearances point very strongly to the fact that the liquid collected in the vesicles is not sweat, but serum.

In the papillary layer of the corium the leucocyte exudation, as well as the vascular dilatation, was always more marked below the margins of the vesicles than below their centre, and always most marked below the newly formed and newly forming vesicles. Here and there the exudation from vessels was certainly more marked round sweat ducts; but this was always found to be in the case of ducts situated near vesicles, and whose pores passed close to the vesicular margins. They were therefore situated in a part of the corium where a mild inflammatory process was going on, and the appearance of the inflammatory process being concentrated around them was simply due to the anatomical fact of the vessels taking the same course as the ducts.

The condition of the epithelium near the vesicles varied with their size and age. The sections from the piece of skin now under consideration were singularly fortunate in showing vesicles old and young. In the young and newly forming vesicles the following condition was found to exist. The exuded lymph collects in the channels between the rete cells and dilates them, the prickles are stretched out, and in the enlarged spaces thus formed we find leucocytes and deposited fibrin. As the process continues the epithelial cells become elongated and narrow, evidently from the pressure of the accumulated lymph. In yet more advanced cases the prickles have in part broken away and the long, degenerated and fibre-like cells, connected here and there at points, form a coarse reticular structure. The advancing process then breaks down these few tense connecting strands of prickles, the network falls aside, leaving a wide space in the centre, and thus a vesicle is formed. So in this stage we see a vesicle bordered by a network of degenerated epithelial cells and a gradual transition in the above described stages to normal epithelium. Around the older vesicles this border of cell network is altogether lost; a few shreds of it may be found loose among the vesicular contents, but nothing more; in its place are several layers of flattened and closely packed epithelial cells, most closely packed where a wall of two or three rows of cells separates two large vesicles. In several sections this intervening wall had given way, leading to the union of two or even three vesicles.

As regards the position of the vesicles, they were in almost all cases situated just below the granular layer. A few small ones were found higher up in the granular layer with cells containing kerato-hyalin all round them. These vesicles, as before stated, were in no part connected with a sweat-pore, the kerato-hyalin being round them simply on account of their high position and small size.

Some sections showed the site of old vesicles and demonstrated well the process of cure. The condition found is stated below, and for the sake of brevity and clearness, is put in tabular form, the different layers being named in order from above downwards.

Above site of vesicle.	(1.) Desquamating layers of horny cells. (2.) In some cases a layer of cells containing kerato-hyalin.
Site of vesicle.	An irregularly arranged group of nuclei embedded in a mass of coagulated and necrosed tissue.

Below site of vesicle.
(1.) A newly formed horny layer with well-stained nuclei.
(2.) Several layers of well-marked granular cells.
(3.) Three or four layers of prickle cells.
(4.) Papilla.

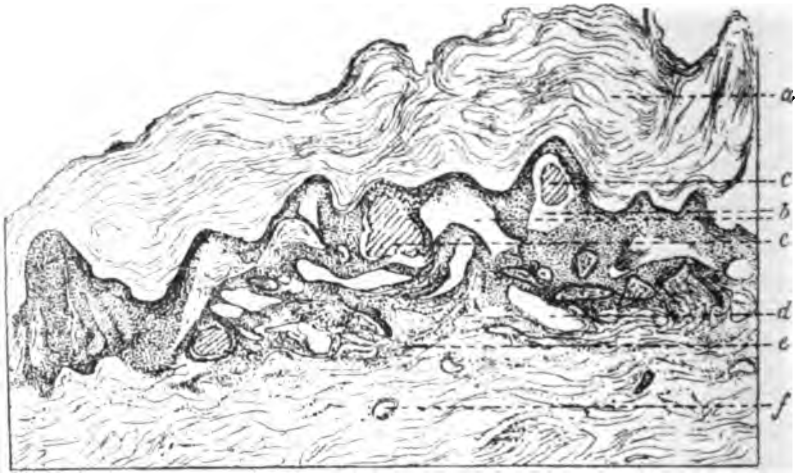
These anatomical facts show at once what has occurred. The fluid exudation has dried up; the old vesicle has been pushed up by the developing cells below, the life history of which has been shortened by increased pressure; hence the early formation of new horny and granular layers. The old horny layer is being desquamated so that the dried-up vesicular contents will soon be cast off, leaving an epidermis perfect as regards the number of strata but thinner as regards the number of cells over the vascular and nervous papillæ; hence the clinical features of a tender and somewhat reddened surface after desquamation.

In order to see whether the above described conditions were constant, pieces of skin were excised during two subsequent attacks. These were prepared and cut in the same way as the former.

A piece excised from the inner aspect of the right thumb showed a condition quite similar. Fifty-eight sections were examined serially, twenty-seven of which showed both pores and vesicles; nine, pores and no vesicles; nineteen, vesicles but no pores; and three, neither pores nor vesicles. In no case was there any connection between pores and vesicles. Herxheimer's spirals, lymph exudation, &c., were found as in the former sections.

Neither of the above pieces of skin were cut deep enough to show the coil glands; but the third piece, cut from the left little finger when the eruption was more acute and occurring during the course of an influenza attack, included all the elements of the skin from the surface to the fascia. Of this, sixty-three sections were examined serially, forty of which contained both vesicles and pores, often three or four of each; twenty-two contained vesicles but no pores; and one, neither vesicles nor pores. As in former sections, pores and vesicles were found to be totally distinct from each other. The vesicles were nearly all in an early stage, they tended to be of a rather larger size than the former. The exudation of leucocytes in the papillary layer below the vesicles was rather greater. The Herxheimer's spirals, however, were localised portion of the papillary layer of the skin, with greatly hypertrophied superjacent epidermis. The presence of large irregular lacunar spaces in the papillary layer and *rete Malpighii*, many of which are filled with blood, is also very manifest. Round the margin of the projection there is perhaps some slight exaggeration of papillation, while in its centre the papillary layer is markedly flattened out by the conditions afterwards to be described.

Under a higher power (× 24 diameters):—Commencing with the epidermis, there is great increase in the thickness of the *stratum corneum*, the cells of which appear not to be so tightly packed together as usual. Some of the sweat ducts in their course through this layer are, nevertheless, compressed and in parts almost obliterated. Here and there are a few small lacunar spaces between the cells, possibly the result of imperfect section cutting.



DESCRIPTION OF FIGURE.

MAGNIFICATION, 24 DIAMETERS.

a. Greatly hypertrophied epidermis.
b. Dilated blood-vessels apparently in *rete Malpighii.*
c. Blood coagulum in dilated vessels.
d. Dilated blood-vessels in upper papillary layer.
e. Copious leucocytic infiltration of papillary layer.
f. Dilated blood-vessel in sub-papillary layer.

The *stratum lucidum* is also hypertrophied, and shows large waxy-looking lumps of eleïdin.

The *stratum granulosum* can be traced practically unchanged across

ON ANGIOKERATOMA.

BY J. J. PRINGLE, M.B., F.R.C.P.,

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(Continued from last month's Journal.)

THE pathological anatomy of angiokeratoma has, as I have already mentioned, been described by Mibelli. I regret that my imperfect knowledge of the Italian language does not permit me to follow the elaborate histological description and remarks upon the pathogenesis and pathological relationships of the disease in the original article. My own views on certain doubtful points may, perhaps, gain thereby in force as being almost totally unbiassed by the previously expressed opinions of so great an authority. His description in the International Atlas of rare Skin Diseases, although brief, is so far accurate that my own observations are, in all but some minor points, confirmatory of it. It must also be borne in mind, in considering these minor points of divergence, that the cases, as already related, presented some points of difference in their clinical characters.

The larger of the two composite telangiectatic and warty-looking growths on the third toe of the left foot of Miss A. B., portrayed in the last number of the journal, was excised in November, 1889. It was placed in absolute alcohol, which was replaced by rectified spirit two days subsequently. Six weeks afterwards serial sections of the growth were cut and stained with hæmatoxylin, picrocarmine and acid rubin. Unfortunately the sections were too thick, and cut too obliquely, to permit of satisfactory photomicrographic illustration, a method I much prefer to that here employed, which is indeed diagramatic rather than pictorial.

Histological Examination.—Under a low power it is obvious that the tumour is composed of an inflamed, hypertrophied and infiltrated destruction of the papillary layer by the blood spaces appears also to have been more complete in Mibelli's case than mine, and the destructive change appears to have extended more deeply into the corium. Although Mibelli also notes the penetration of the interpapillary epithelial cones for some distance into the cutis in the form of "very slender spiral prolongations which divide at their extremities," he does not specifically draw attention to the obvious proliferation of epithelial cells going on there, although I think it may almost be inferred from his description.

The points in which my observation does not tally with Mibelli's are briefly as follows:—In none of my sections was I able to identify distended lymph spaces, still less "several broad lymph spaces, some of which are filled with blood corpuscles," as related by Mibelli. Nor was I able to verify his observation of the "presence of serous exudation, the formation of vesicles and medullary cavities" in the horny layer. Again, in my case there was distinct diminution of lumen of the sweat ducts present in their passage through the horny layer, and no sebaceous glands were present, whereas in Mibelli's case there are reported to have been "numerous normal excretory ducts."

I can suggest no absolutely satisfactory explanation of the pathogenesis of this curious disease. I cannot, as already stated, accept the explanation offered by Dubreuilh, that the little growths are essentially warts or papillomata,* in which "the capillaries of the (presumably actively growing) papillæ present little angiomatous dilatations, which afterwards become isolated and separated from the circulation, and in which the coagulated blood is dried up."

For, (1) the microscope demonstrates indisputably that in place of papillomatosis there is, on the contrary, a marked flattening and destruction of the papillary layer, and (2) clinical evidence clearly shows that the initial lesions (*e.g.*, chilblains) are erythematous in nature, *i.e.*, temporary dilatations of blood-vessels. As the result of repeated erythematous attacks the terminal capillary loops in the papillæ yield, and dilate to form permanent telangiectases. A similar process occurs in old persons as the result of diminished vascular elasticity, and may almost be regarded as a physiological change; it occurs prematurely in the cheeks of persons whose occupations expose them to high temperatures (*e.g.*, cooks) or to vicissitudes of climate (*e.g.*, 'busmen), and is a prominent feature in many cases of rosacea and lupus erythematosus. I cannot, then, but regard the vascular change (angioma) as the essential one, and the alterations in the horny layer as secondary or accidental. The following most interesting case observed by Mons. Vidal shows that telangiectases, similar to those of angiokeratoma, may occur after the very evanescent erythema of urticaria, or of a condition more closely allied to urticaria than to any other definite disease. I extract the case, *in extenso*, as reported.*

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* I cannot regard with favour the term "simple keratoma," used by Mibelli as synonymous with "verruca vulgaris," as I hold that the essential factor in a wart is an hypertrophy of connective tissue in the form of a papillary projection with a vessel in its centre, whether the connective tissue from which it arises is "papillary" in its arrangement or not.

Mons. Vidal showed a patient affected with a very rare cutaneous affection, a sort of *accidental, symmetrical* and *generalised telangiectasis* having marked points of resemblance to the case of *general and idiopathic venous dermostasis* recently observed at Naples by Professor Vincent Tanturri † in an amenstruous young girl of 14 years.

The patient was a woman, aged 31 years, of small build, of rather energetic appearance, neurotic, and even liable to some of the nervous symptoms of hysteria. She first menstruated at the age of thirteen years and a half, and for the first time, about the age of fourteen years, noticed the first permanent red spots on the inner aspect of the forearms. These red spots disappeared on pressure, increased under the influence of cold or nervous excitement, and gradually spread to other regions. They invaded in a symmetrical manner the arms, chest and neck, and more than a year afterwards, the wrists, the backs of the hands, the loins and back. They had been preceded by an hyperæsthetic condition of the skin, by a pruritus sometimes most aggravating, and their development seemed consecutive to outbreaks of a *chronic urticaria*. This eruption had showed itself some months before the first red spots, at the establishment of the catamenial flow. It appeared to be in direct relation to the neuropathic condition—the spasms, palpitation, and gastralgia—from which the patient suffered severely at that time. A succession of painful, and sometimes violent emotions, the result of great family troubles, played an important part in the super-excitement of the nervous system.

Three months previously, when she first consulted M. Vidal, her face was of a deep red colour, studded with violet, lenticular, slightly prominent patches, which paled under pressure, leaving a yellowish stain. The patches were more discrete on the left side of the forehead. They marbled the neck in an irregular manner, and were more abundant and almost confluent upon the front of the chest and on the back. They were few in number over the abdomen and round the pelvis. A few were visible on the inner sides of the thighs. There were none generally distributed over the lower extremities, although some superficial varicose vessels here and there showed their ramifications. On the inner side of the sole of the left foot there were about fifteen of these, and seven in the corresponding position on the right side.

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* Bulletin de la Soc. Medicale des Hopitaux de Paris, 1880, tome xvii., 2nd serie, p. 186.

(† Un caso di dermostasi venosa generale e idiopatica (Il Morgagni, tome xxi., p. 561). Abstract by L. Jullien in *Annales de Dermatol. et de Syphilig*, April, 1880, p. 338.

The lesions are best characterised on the arms and forearms. On the inner aspect of the arms and forearms, round the wrists and on the backs of the hands (the palmar surface of which is entirely free) there are red spots, slightly prominent, the size of a lentil, which collapse and become pale under digital pressure, or when the skin is stretched, and their situation is then marked by yellowish discolouration.

When the root of the limb is compressed, the stasis causes congestion of the spots, when they become more prominent and of a reddish violet colour. On the inner side of the forearms these spots are confluent, and are only distinguished from the uniform red of the background by their deeper colour; *the skin is thickened*, and that thickness is increased when the compression of the veins increases the congestion. The affected regions are hyperæsthetic. The patient often experiences severe itching, which compels her to rub or scratch the parts. These rubbings or scratchings are followed almost immediately by an outbreak of urticaria. Exposure to cold, to the heat of a fire or violent emotions, produce itching, urticaria and congestion.

The mucous membranes of the mouth and genital organs show no abnormal colour. The conjunctivæ are often congested, so is the nasal mucosa. At the menstrual periods there is often a slight epistaxis. The periods only last one day, and the amount of blood lost is very trifling.

The uterus is a little displaced in anteversion, and has been congested; at the present time it seems normal. The size and sounds of the heart are natural; the lungs and kidneys are healthy. The urine has been repeatedly examined and found to be normal.

Mons. Vidal demonstrated that the affection was not a "lichen lividus," as Bazin had diagnosed it. The appearance of the lesion was not exactly that of a vascular erectile nævus, nor that of the telangiectases, which may develop during life, and affect more particularly the face and the lower limbs. Mons. Vidal thought that the pathological state was dominated by the disordered (*maladif*) state of the nervous system manifesting itself upon the sensory and vaso-motor nerves of the skin. He thus explained the chronic urticaria and the consecutive telangiectasis.

[Mons. E. Besnier thought it extremely difficult to give a definite opinion on the point; he believed it was a cutaneous lesion in very curious relationship to urticaria. It would be of importance to examine the heart, and have sphygmographic tracings taken in order to determine if there was any obstruction to the return circulation, or if there were merely a vaso-motor affection of the cutaneous circulation. As to nomenclature, one might provisionally call it *generalised telangiectasis* without committing oneself for the future. He suggested the microscopic examination of a portion of excised skin, and thought that linear scarifications were clearly indicated, at least for the lesions on the face.]

The statement that the skin was thickened, which we have under-lined, brings this case into fairly close relationship with angiokeratoma, although it is certain that nothing like the amount of keratoma present in the disease of which we are treating can have existed in Vidal's case.

I can hazard no explanation, except that of idiosyncrasy, of the determining circumstances under which these vascular changes in the papillary layer are followed by the proliferative alterations in the *rete Malpighii*, which I hold to be one of the peculiar features of angiokeratoma, and as responsible for the hyper-keratinisation which is clinically so prominent a feature of the disease, and pathologically marks it out from mere telangiectases. It will have been observed that in three out of the seven recorded cases the condition was present in more than one member of the family, no information on the point being given in the remaining four cases. We have, unfortunately, no microscopic evidence of the state of affairs in the earlier stages, when the condition is apparently merely one of dilatation of capillary loops; but I regard it as probable that this cell proliferation of the *rete Malpighii* occurs, in predisposed persons, very soon after the appearance of the primary erythematous lesions. It seems to me also likely that the penetration of the *rete* deeply downwards into the papillary layer may, by exerting pressure upon the papillæ, materially contribute to their disappearance and to the constriction of the vessels at their base, and may thus form an important factor in the production of their terminal, ampullar enlargements. In this way only can be explained the presence of these vascular spaces in the *rete Malpighii*, for the extension of blood-vessels from the papillary layer into it does not constitute a tenable, pathological hypothesis.

All the lesions in my case (No. 1) bled freely when pricked, showing that the circulation still existed in the dilated vessels. In Dubreuilh's case, however, the occlusion of blood-vessels appears to have been complete, as not only were the spots "black," but he was able to enucleate masses of dried blood on cutting through the epidermis. It would be very interesting to know how these blood clots surrounded by a cell wall conducted themselves, and how long they remained. The indefinite persistence of spots, such as I have described, is no cause for wonderment.

It will be unnecessary to discuss at any length the *differential diagnosis* of angiokeratoma. To indicate the points of difference from (*a*) simple angiomata on the one hand, and (*b*) warts on the other, would be merely to recapitulate much that has already been written. There is, however, one form of angioma which merits some special notice here as presenting some analogies with the telangiectases of the initial stages of angiokeratoma. I refer to a condition which Mr. Hutchinson (who had carefully observed and described four cases, one of which at least is figured in his "Archives of Surgery") claims as belonging to his "lupus group," and as closely related to his "lupus lymphaticus" (lymphangioma circumscriptum). The disease begins in early childhood as little vascular tufts, which do not empty on pressure, and spreads slowly at the periphery in a serpiginous manner. Hence its reception by Mr. Hutchinson into the widely outstretched arms of his "lupus group." Although it does not leave scars, I am inclined to think the condition an ally or infantile form of telangiectatic lupus erythematosus, a disease which I, for my part, am particularly desirous to see dissociated from the "lupus group," even if an alteration of name—say to ulerythema, as suggested by Unna—were necessary.

Similar vascular tufts are present at the margins, or may be so abundant as even to mask the character of patches of lymphangioma circumscriptum. It is not without interest to note that this disease was at one time designated "lymphatic warts," just as angiokeratoma has been miscalled "telangiectatic warts," the error in both cases being the result of the accompanying hyperkeratosis. The possible association of the two morbid conditions is suggested by Mibelli's statement as to the dilatation of lymph-spaces in his case, and also by an observation of Leistikow.*

As a rule, however, lymphangioma circumscriptum is not so associated, and as it is the disease with which angiokeratoma is most likely to be confounded, the points of difference between the two may with advantage be noted. (*a.*) Angiokeratoma is always a sequela of chilblains. No such antecedents have been noted in lymphangioma.

(*b.*) Angiokeratoma develops about early adult life, and occurs only on the hands and feet. Lymphangioma shows itself in early childhood, and is commonest on the trunk, neck, arms, thighs and face.

(*c.*) The lesions of angiokeratoma when pricked, bleed. From those of lymphangioma a colourless, serous fluid exudes.

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* *Deutsch. Med. Wochenschr*, 1890, p. 29.

(*d.*) The general lymphatic disturbances (œdema, elephantiasic enlargement, etc.) occasionally noted in connection with lymphangioma, have never been associated with angiokeratoma.

Treatment. Electrolysis was applied to the hands only of Miss A. B. A fine steel needle connected with the negative pole of a bisulphate of mercury battery was inserted into the telangiectases, the positive pole being held in the other hand, and a current of two to three milliampères was allowed to pass for thirty seconds. Although the little operation was painful, the patient was so plucky that I was enabled to destroy more than a hundred at each of the two sittings required to completely remove the disease. During the passage of the current the lesions swelled considerably, their epidermic caps being separated and raised by the gazeous results of the electrolysis, but this soon subsided, and three weeks afterwards recovery was complete. There were no resulting scars, except in the case of one of the larger warty-looking growths, and that has now filled up so as to have become practically imperceptible.

I think that the procedure may, with safety and confidence, be recommended for similar cases.

CLINICAL NOTE.

A CASE OF TRAUMATIC PEMPHIGUS.

BY LESLIE PHILLIPS, M.D.

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It will be doubted by many if the above title applied to the following case does not somewhat stretch the proprieties of dermatological classification; but if we allow the case to speak for itself first, the necessary *apologia* will possibly be of more weight after its brief exposition.

Miss C. W., a sparely-built milliner, aged 31, came under observation at the end of May, 1891. She stated that about seven weeks previously her feet began to ache and be painful, particularly after walking or standing, and that this condition had continued since; very shortly afterwards there appeared bullæ upon the dorsal surface of the feet and upon the lower third of the front of the legs and ankles. There now exist several stained, slightly pigmented, erythematous spots the size of a shilling in the regions indicated, these being the sites of healed bullæ. There is also present on the dorsum of the left foot a large broken flaccid bulla, with slight angry-looking areola suggesting in appearance a serpiginous pemphigus. She says that the previous ones appeared first without an areola, but on breaking have led to more or less excoriation. The feet ache upon walking or standing, and apart from this she complains very much of shooting pains extending down the front of the legs and dorsum of the feet. These pains, she states, are much worse at the menstrual periods. She has always suffered from cold feet, but during the last twelve months this has been worse. Upon examination the patient is found to be flat-footed. Under a dressing of zinc ointment the flaccid bulla soon healed, but for two or three months she continued to complain of the shooting pains. Six weeks after she came under observation another large pemphigoid bulla appeared on the little toe: this was seen soon after its appearance and was then devoid of areola.

From the history; from the presence of pain in and about the ankle, and in the position of the transverse tarsal joints; from the present obliteration of the longitudinal and transverse plantar arches when weight is thrown upon the foot; and from the fact that the pain in these parts appeared somewhat suddenly seven weeks before, prior to which time she had not so suffered, it may be inferred that at this time passive yielding of the tarsal ligaments arose. By the broadening out of the sole and collapse of the arch the nerves and vessels of the sole become unduly pressed upon or stretched, as is evidenced by the pain. There is no doubt in the patient's mind that the general aching preceded the appearance of the bullæ on the dorsum of the feet, but it is not quite clear when exactly the neuralgic pain shooting down the front of the leg and ankle first appeared.

In seeking for an explanation of the case the most satisfactory seems to be that it was a deuteropathy from the stretching of the plantar nerves or of the posterior tibial nerve where it lies behind the inner malleolus; for as the foot flattens the internal malleolus descends. This stimulus caused reflex sensory and trophic phenomena in the territory of the musculo-cutaneous branch of the peroneal nerve. This theory appears to be supported by the anatomy of the nerves, for both the stimulated and the efferent nerve originate from the same sciatic trunk: moreover, the musculo-cutaneous becomes cutaneous only in the lower third of the leg and the lesions were confined to these parts.

Possibly a better title for this note would have been "On a bullous eruption appearing about the feet and ankles apparently as a result of suddenly occurring non-congenital flat foot," but the unwieldiness of such a heading is forbidding; and, moreover, if the foregoing considerations are, as they appear to be, correct, the name of Pemphigus is fully justified, and any other would be improper, for then we have a Deuteropathic Acantholysis (loosening of prickle layer), and Auspitz in his etiological classification ranks Pemphigus and Pemphigous dermatoses as such. The effects of the subsidence of the plantar arch must be acknowledged, in many respects, to be of the same character as those due to injury from external causes.

REVIEW.

PATHOLOGY AND TREATMENT OF SYPHILIS.*

THE volume before us—the tenth systematic contribution to syphilography which has appeared, to our knowledge, in the last ten years—deals with the subject of syphilis in its two main aspects, pathological and therapeutic, and is from the pen of an old authority. Its bulk—an octavo of some five hundred pages—is a little formidable to those who have no *horæ subsecivæ* for close reading. But the excellent arrangement in which the Professor has ordered his learning and experience will greatly diminish the labour of those who are accustomed to resort to German sources for information on scientific subjects.

We believe three classes of readers will specially welcome this volume: 1st, those who acquired their teaching in the days when Ricord's influence was predominant, for they will find the old French doctrines of 1838 mostly confirmed; 2nd, the syphilographist and dermatologist; 3rd, the medical lecturer, who will be able to choose from its well-ordered, clear-titled sentences the main facts for the information of his pupils.

The book presents itself without any artistic display. The dress is decidedly modest and German. We think it a pity that valuable facts and good thoughts should not be preserved in better ink and paper. Credit is due to the publisher for the care bestowed on technical details. We have noted only a very few errors of this sort. On page 249 two sections are unnumbered, and section 251 should have been 253. The types are clear, and the arrangement by sections excellent. The chiaro-oscuro effect of the titles over the sections has the force, in these literary pictures, of the chiaro-oscuro in a Rembrandt—it teaches by contrast. The book is divided into two main parts; the first is historic-doctrinal, the second deals with the facts of syphilis in two departments—Acquired and Hereditary.

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* Pathologie und Therapie der Syphilis, von Dr. Moriz Kaposi, Verlag von Ferdinand Enke, Stuttgart, 1891.

Those who are inclined for historical research will find here a succinct sketch of the history of syphilography.

Our author, with that breadth of reading which gives such fulness to all his historic researches, attempts to unveil the mystery which hangs over the origin of this disease. He does not stop long to discuss whether it was in this hemisphere or the other that the pathological apple was first eaten whose taste brought death into the world. His inquiry brings him to John Hunter and the Identity Theory.

On the testimony of a single experiment Hunter raised a theory which from 1787 to 1838 was to regulate, and even dominate, over the views of physicians regarding the nature of syphilis. Because the secretion of a certain case of gonorrhœa gave rise by inoculation to gonorrhœa and to syphilis, the universal conclusion was deduced that gonorrhœa, chancre, and syphilis were identical—that syphilis arose first always in the form of gonorrhœa. There was but a single step between this conclusion and Hunter's denial of hereditary syphilis. It was the denial of no new doctrine either, for Fernelius, Paracelsus, Fallopius, Rondelet, Ferrierus of Montpellier, Ambrosius Paré, and others had taught it in no uncertain way some five hundred years ago. To John Hunter there was but one chancre. It was the first article in his creed of syphilography. All genital sores which were not hard were not chancres, but simple ulcers, and none but the indurated chancre could give rise to constitutional syphilis.

Such are Hunter's views on the theory of syphilis as represented by Professor Kaposi. The doctrine of syphilis stands now, in the eyes of our author, on the foundation laid by Ricord. The classical inoculation experiments of the Frenchman, pursued with a *sang froid* impossible in this country, finally settled the total distinction of gonorrhœa from syphilis, and shattered the Hunterian doctrine of chancres. It is true we have deviated in some vital points from Ricordian axioms. Thus the products of the so-called secondary syphilis are proved beyond dispute to be contagious and capable of infecting a healthy person with syphilis. Hunter had taught that gonorrhœa was the only *porte d'entrée* of syphilis to the human body. Ricord moved a step nearer the truth when he affirmed that it was only through the chancres. But Professor Kaposi, as the latest exponent of modern teaching, declares that no chancre is necessary. The primary lesion may be a papule. This is the character of the primary affection when the virus is derived from the blood or "secondary" products of the syphilitic.

If Ricord was a Unitist, so emphatically is Kaposi. We are introduced to the chancre, not after the fashion of the modern text-books, but as to one of the symptoms of Idiopathic or Local Syphilis. It matters not whether it is soft chancre or hard chancre, bubo or adenitis, papule or erosion, or any other variety arising accidentally or incidentally, they are all members of one great group—Idiopathic Syphilis. Thus the Professor differs essentially from the French Dualists, who agree to believe that the soft chancre is quite different from the "hard," which alone is capable of originating constitutional syphilis. Not less discrepant than this is the Ricord-Kaposi doctrine with the German Dualists. *Their* chief point is that induration is the first sign of constitutional infection. But this belief finds no favour with our Author—is, in fact, quite opposed to his experience. It is laid down here for us as an axiom that the hard chancre is not necessarily followed by constitutional syphilis.

The beliefs of the Unitists are summed up in the following propositions:—

1. "The soft chancre—with or without suppurative bubo—ends as a rule as a local disease without constitutional consequences."

2. "The same—with or without suppurative bubo—is not unfrequently followed by general syphilis."

3. "The soft chancre begins as such, becomes indurated in its further course, and is followed by general syphilis."

4. "The hard chancre begins, in the majority of cases, as a soft chancre (as pustule without incubation); whose induration developes in the course of two to three weeks—even, sometimes, within three to five days. It is followed, as a rule, by general syphilis."

5. "The chancre shows a typical induration, which in some very rare but well-established cases is not followed by general syphilis."

6. "If the typical sclerosis is removed early enough by incision or otherwise, general infection is excluded—certainly not always, but yet in a sufficiently large number of cases."

7. "Soft (follicular) chancre and pustules may be transformed *in*

situ into characteristic papules. These increase for some time by auto-inoculation, like the chancre, as a local affection. After a course of six weeks to three months roseola appears as a manifestation of constitutional infection."

8. " Several primary scleroses may appear simultaneously in the same person, or develop one after the other."

9. " The purulent secretion obtained from Hunter's nodules and papules, which were highly suppurative, either from spontaneous or artificial irritation (seton, irritating powders and plasters) produced ulcers by inoculation . . . hence corresponded in this relation with soft chancres."

10. " By transference from ulcers of this nature (*i.e.* arising by inoculation from a sclerosis on the same person (*au porteur*) or on another syphilitic person) a soft chancre would arise on a healthy individual which, in individual cases, was not followed by general syphilis."

11. " The artificial inoculation of secretion of secondary syphilitic products, or blood of the syphilitic have showed, that, in these cases, the primary affection does not take the form of a chancre, nor of Hunterian induration, but of a papule devoid of induration."

12. " Clinical experience teaches that in innumerable cases general syphilis may be directly transferred from a so-called broad condyloma, without the occurrence of sclerosis or a form of chancre as an initial effect."

13. " General syphilis follows very frequently from primary affections which correspond neither to the character of a typically soft, nor of a typically hard chancre, nor of a sclerosis, nor of a papule, but from a phagedenic or diphtheritic ulcer, or even from a mere erosion (ulcus ambustiforme, érosion chancreuse, Bassereau)."

14. " Finally, there are well-established cases of syphilis being acquired without any trace of a primary affection."

Special stress is laid by the Unitists on propositions 5 and 6. They are propositions founded on the actual observation of men of scientific probity, and due weight must be attached to them. But it is an experience totally foreign from the fields of other observers, perhaps of equal probity. The very latest utterances on this matter, from a *brochure* in the *Wiener Klinik* by Elsenberg, contradict the most vital point of this Ricord-Kaposonian Creed.

Elsenberg's diagnostic worth of the induration of the chancre is great—because a sign of a generally infected system. Kaposi's is relatively slight, because a sign of a local process which may, and usually is, but not essentially, followed by constitutional syphilis. We believe it is impossible to arrive at any sound and final opinion on this subject, when the stuff out of which the opinion is to be made is of such a shifting and variable character.

But on the principle of a Unitist the author has constructed his whole work. The subject is treated in two great divisions:—1. Acquired syphilis; 2. Hereditary syphilis. Acquired syphilis he divides into *idiopathic* and *constitutional.*

We have already prepared the reader for the contents of this idiopathic group of symptoms. The anatomy of the soft chancre is portrayed in two sections, accompanied by three not very fine woodcuts. No doubt is left on our mind, after perusing these sections and those dealing with the hard chancre, of the truth of the Professor's words, "That it is to the *course*, not to the anatomical nature, of the chancre that we must look for the essential distinction between them." The words of Virchow, quoted in support of this opinion, are of deep significance, and will admit of being re-quoted:—"We clearly perceive that the morphological product in syphilis has no absolute worth. Only through its development and manner of retrogression, through its natural history, through its life, does it acquire its significance." The treatment of the main and accidental varieties of chancre, with their lymphatic accompaniments, is discussed in twenty-eight sections. There is nothing new in these sections that we have discovered—perhaps not all of the newest. They deal with their subject on modern surgical principles. We are prepared *for the* Professor's opinion on the abortive treatment of the chancres. We are advised to get excision of the chancre, be it hard or soft, for experience proves that general infection may be prevented. This teaching is foolishness to the German Dualist and to those of their way of thinking. For the very induration which the Professor would excise is, in their eyes, an *effect* of general infection.

The portion of the volume devoted to Constitutional syphilis includes, we believe, the best efforts of our author. Apart from the subject-matter, it has the extreme merit of lucidity. Indeed, we know of no work of like kind which has appeared within the last ten years which exhibits such logical and judicious arrangement of an equal range of facts and opinions. This is specially true of the sections which deal with cutaneous syphilides. There are signs here neither of hurry nor confusion, but of a masterly command of the whole subject. With philosophical sagacity the matter is gradually unfolded, and the essential sifted from the minor and accidental. He is precise without being over-dogmatic; full, but not burdensome. In a subject worn threadbare by endless discussions and generations of text-books, we welcome any originality which relieves the monotony of the old types. The original and independent mind of the author is clearly apparent in these sections on the syphilides. When we read in § 106 that the early and late forms of syphilis represent essentially the same process, we are not surprised that the old period-classification of the symptoms is abandoned. We welcome this change as more rational and in better agreement with established facts. This is just one of those points in which our author deviates from the Ricordian doctrines. For "*primary*" he substitutes "*idiopathic*," and for "*secondary*" and "*tertiary*" we are given *eruption-period*, *latent-period*, and *relapsing-period*.

Throughout the seventy-one sections devoted to the cutaneous syphilides a certain definite order is pursued. The reader is first informed of those constant and essential points in the character of the syphilides. The minor and subsidiary points are then noted and arranged, not as they happen to arise in the memory of the writer, but in their logical sequences. His classification of the syphilides is a simple one:—macular, papular, nodular, the pustular and ulcerative being forms of degeneration. Each of these is taken in succession; its development, course, and termination duly portrayed; its anatomy demonstrated by text and wood-cut; its differential diagnosis fully discussed; and, finally, we have portrayed its relation to the general syphilitic disease. We rise from a perusal of these sections with the sensation of having passed through some gallery of portraits in which the life of so many morbid processes is embodied in printer's ink.

The sections on the anatomy of the lesions is not the strongest part of the book—indeed both in number and quality they appear to us subsidiary to the clinical and theoretical portions. They leave upon us the impression that their author is conscious how little the microscope can teach us why a syphilide is essentially so different from the disease it mimics. But this does not surprise us, as Cornil had confessed the same long ago, and Virchow confirms them.

With the same rhythmic order the author passes over the syphilitic processes of the remaining tissues of the body. Of those of the mucous membrane he is fullest and most self-reliant when dealing with the syphilides of the tongue and mouth. The question how psoriasis linguæ is related to epithelial carcinoma is discussed in a section of its own. It is a "relatively frequent" occurrence, the conversion of the psoriasis lingual patches into carcinoma—an experience not Kaposonian only, but recorded and believed in by others. The Professor is convinced that suitable treatment may postpone or hinder this dangerous sequel.

In dealing with tissues outside of his own speciality our author draws largely from the experience of others; but his facts everywhere are ordered in the same clear way.

The increasing importance of syphilitic affections of the nervous system meets with a corresponding recognition in this book. *In the* thirty sections allotted to them, he reviews the past history of the subject. During the present unsettled condition of this portion of pathology we do not expect much precision or clearness in these sections. But the subject is honestly met, and the difficulties of differential diagnosis clearly shown.

This first portion of the book, on acquired syphilis, ends with a special discussion of Vaccine-syphilis. The opinion of the author is that expressed by Mr. Hutchinson some years ago—that *pure* lymph cannot at present be considered as capable of communicating syphilis; that such undoubted cases that have occurred are due to admixture of blood.

The remaining portion of the volume deals with Hereditary *or* congenital syphilis; Etiology; and Therapeutics of syphilis. Syphilis acquired in the act of conception, or in the passage of the infant into the world, with all its consequences to mother and child, is here discussed in some five-and-thirty sections. The reader of them will be rewarded by a succinct survey of a difficult subject. But on some points of extreme delicacy and gravity he will do well to consult the fuller works of Fournier.

Coming to the Etiology of the disease our author, after quoting a remarkable passage from Fernelius (1485–1558), which may almost be taken as the creed of modern syphilography, enters at once into the history of the bacteriological search after a microbe which is now presumed to be the bearer of the syphilitic virus. A chromolithograph illustrates Lustgarten's bacilli. The counter-discovery of Alvarez and Tavel (smegma bacillus) is duly discussed, and the author comes to the conclusion that the discovery of a smegma bacillus giving colour reactions similar to those of Lustgarten's does not annul the conclusion of this observer, that probably these peculiar bacilli are the bearers of the syphilitic virus.

A considerable portion of the volume (seventy-five sections) deals with the therapeutics of the disease. He discusses the "coupir-methode" at length, on the ground of a Unitist. These eradication-methods, as we may call them, are the means used to eradicate the virus, if possible, before it has gained access to the juices and tissues of the body. We believe they are not of much practical value in the estimation of British practitioners, nor, indeed, of none but the Unitists. Very full is the part dealing with the relations of mercury to syphilis, and here our author has received the help of Dr. Heinrich Paschkis. We have an inquiry into the several ways by which mercury can be introduced into the body. On the method by injection, which has been one of the most urgen questions in syphilography of recent years, he cautiously expresse himself. There are advantages and disadvantages, but what is it essential worth is yet undecided, for want of sufficient time.

H. Leslie Roberts.

CURRENT LITERATURE.

PSORIASIS. Professor DR. A. G. POLOTEBNOFF. (*Ergänzungsheft I. of the Monatshefte für praktische Dermatologie*, 1891.)

In this highly interesting and original essay Professor Polotebnoff expresses his opinion that psoriasis is nothing more than the result of nervous disturbances of various kinds, being, in other words, a neurosis of the skin.

It must be conceded that all theories hitherto advanced regarding the etiology of this affection have not yielded a satisfactory or convincing solution of the question. Professor Polotebnoff discusses the various hypotheses put forward, clearly showing that none of them is quite sufficient to solve all difficulties. He mentions heredity, parasitic influences (Lang's theory), hereditary syphilis (Er. Wilson), then arthritism, and the herpetic diathesis as advocated by the French school, acute infectious diseases, intemperance, etc.; and after giving to each due consideration, proceeds to expound his own opinion.

The anatomical conditions in psoriasis have been carefully and frequently examined, and we now know (1) that it is not an inflammatory process; (2) that it is connected with dilatation of the vessels of the papillæ of the skin; (3) that it is accompanied by an increase in the formation of epithelial cells. Changes in the nerve tissues have indeed hitherto not been described, but this is probably due to their not having been sought for properly.

Professor Polotebnoff's clinical cases are highly instructive. Generally, it is stated that patients with psoriasis are otherwise usually robust and healthy persons. This is entirely disproved by these observations. A selection of some twenty-eight cases is given in the German paper, the original Russian publication comprising sixty-seven. For the purpose of a more ready comprehension they are grouped in eight classes.

The extent and appearance of the skin disease is omitted in many, as the chief point of interest lies in the nature of the nervous symptoms. These comprise severe headache, remarkable neuropathic affections in members of the same family, and coincidence of appearance of the eruption with some severe psychical shock, evident clinical abnormalities in the nervous system, diseases of bones and joints, typhus fever, injuries of the head, intemperance, and minor neuropathic symptoms.

A short summary of these cases will give an idea of their nature.

GROUP I.—*Severe Headache prominent complaint.*

1. Lawyer, æt. 24. Severe headache, nervousness; complains also of great impairment of his mental faculties. Hysterical attack while witnessing a theatrical performance.

2. Naval officer, æt. 24, suffered from intense melancholia: on being sent

south for change of air the psoriasis healed spontaneously. Relapse of skin disease after protracted headaches. Hysterical attacks. Whole family talented but nervous.

GROUP II.—*Neurasthenia. Psoriasis Coincident with Nervous trouble.*

3. Lady, married, æt. 26. Whole family proverbially nervous. Suffered from intense cough when 13 years old. Sent to San Remo; met here Professor Botkin, who applied faradic current to larynx for quarter-hour. Since this one *séance* cough entirely gone. Suffers from attacks of palpitation of heart, with trembling and determinations towards the brain.

4. Jewess, æt. 20. Mother suffered from megrim, father epileptic. Patient nervous and hysterical. Eruption appeared as the result of intense mental strain on changing her religion to marry a Christian.

5. Officer's wife, æt. 28. Severe insomnia, hallucinations of sight and hearing; grandmother insane. Eruption appeared in consequence of affliction from losing two children on one day from diphtheria.

6. Girl, 16 years. Suffers constantly from vertigo; the least excitement (dancing) causes enuresis. Weeps if she is not given her favourite cup at breakfast. Grandfather insane.

7. Youth, 18 years. Fell on back of head five years ago; since then protracted headache; later on appearance of eruption. Somnambulism. Father died insane.

8. Medical man, æt. 40. Father had psoriasis. Patient declares himself to be highly nervous; sheds tears copiously before strangers, when speaking of the death of his two children from diphtheria.

9. School-boy, 15 years. Genital organs abnormally developed; suffers from severe headache; exceedingly taciturn and reserved. Parents were both demented. Brother suffers from periodical attacks of kleptomania. On re-entering school, reappearance of eruption, which had been perfectly healed; cured again in 3 weeks.

GROUP III.—*Influence of Psychical Disturbance.*

10. Married, female, æt. 27. Hysterical convulsions; hallucinations of sight and hearing.

11. Boy, æt. 14. Muscles flaccid, subcutaneous fat at a minimum; suffered from convulsions when 3 years old. Exacerbation of eruption after scarlatina with convulsions when at school.

12. Bookseller, aged 52. General appearance excellent; complains of occasional headache. Enquiry elicited that from early youth he had suffered from moderately frequent (about 3 to 5 per year) attacks of a peculiar nature, ending in fainting.

13. Girl, æt 12. Psoraisis appeared while she was away from home and suffered much from home-sickness. An epileptiform attack also recorded,

14. Engineer, æt. 26, very powerfully built, apparently perfectly healthy. Three relapses of skin-disease. Examination showed that the 4th, 5th and 6th dorsal vertebræ were very sensitive to touch, even slight pressure producing reflex contractions of the muscles of the back and upper extremities. Knee-reflexes exceedingly marked. Temperature in the right axilla, as taken during four weeks, regularly higher than on the left side; morning temperature higher than evening temperature.

That of the diseased spots higher than that of the healthy skin by 1·1° to 2·7° F. Patient had had measles, scarlatina, resulting in perforation of the tympanum on both sides, typhoid fever and malaria, the last being shortly followed by the eruption. The skin trouble was always worst in spring, when patient was preparing for his examinations.

15. Gentleman, æt. 30, tall and muscular. Perpetual dizziness, palpitation of the heart, insomnia, inability to concentrate his thoughts on his work. While under treatment for his nervous disorders decided improvement in the skin disease. Died eventually of progressive paralysis. Other members of the family also of a neurotic disposition,

16. Youth, aged 16. Father suffering from nervous debility, brother from melancholia. When at school denounced the teacher to the authorities as inciting the pupils to murder the Czar in the history lessons. Aural hallucinations. Simultaneously psoriasis appeared. Later on, other mental abnormalities developed.

GROUP IV.—*Diseases of Bones and Joints.*

17. Architect, 45 years of age, looks like a perfectly weak old man; knees swollen and painful on pressure; right hand presented extensive deformities and ankyloses; shoulders also affected; some of the toes likewise distorted. Bending down quite impossible; sitting down involves much difficulty, getting up still more so.

18. Judge, 41 years old. Severe nervous symptoms (intense weakness, deafness, insomnia, headache, etc.), have repeatedly set in in consequence of mental exertion. At such times the patient omits words in his official papers, is confused, speaks with difficulty, and finally has to take to his bed. The face presented congenital asymmetry, the left pupil was larger than the right, tongue deviated slightly to the left. Albuminuria was also observed. On being relieved from his judicial duties, complete recovery ensued.

19. Horse-trainer, aged 48, extremely powerfully built. It was observed that the eruption coincided with a period of intense nervous excitability, whilst improvement immediately set in when the patient obtained an increase of salary. Fingers and toes showed remarkable deformities. Patient had repeatedly received severe injuries, especially of the head, while breaking-in horses.

GROUP V.—*Psoriasis in connection with Typhus Fever.*

20. Doctor, aged 30. Has long been neurasthenic. Floating kidney. In the Russo-Turkish war, typhus fever. Shortly after, the eruption appeared. Father and brother also of nervous disposition.

21. Drayman, 30 years, powerfully built. Pulse 68 per min., is readily accelerated, by walking up and down the room, to 88. Hearing defective. Began drinking spirits when 18 years of age. Was repeatedly struck on the head while intoxicated. Twice typhoid fever, highly delirious during illness. Frequent headaches. Psoriasis appeared after drinking away 90 roubles, which distressed him very much. Argyle-Robertson phenomenon marked. Skin reflexes of right side augmented, on the left side absent. Tendon reflexes diminished.

GROUP VI.—*Injuries of the Head.*

22. Peasant, 58 years of age. Had suffered from protracted febrile disease; intense headaches for two years; fell from his horse and injured his head; unconscious for some time; immediately after, skin disease appeared.

23. Peasant boy, aged 17, fell from his horse five years ago, was long unconscious. Knee reflexes diminished.

24. Private male patient, 23 years of age. Difference of temperature on the two sides. Pulse variable. Epileptic attacks. When 16 years of age received a kick from horse, on his forehead. Eruption was healed when he entered military service.

GROUP VII.—*Alcoholism.*

25. Waiter, æt. 33, narrow chest, small stature, decrepit appearance. *Potatorum cyclicum strenuissimum.* When abstaining from liquor he is free from the eruption. Had sustained some injury to the head, and had measles, syphilis, and typhoid fever.

26. Retired officer, aged 42, hard drinker, powerful build. Mental faculties highly impaired. Vasomotor nerves react intensely to psychical and other influences; undressing before strangers produces deep blushing and a stream of perspiration from the axilla. Sensibility to faradic current very variable on plaques.

GROUP VIII.—*Nerve Changes only found on Special Examination.*

27. Huckster, æt. 49. Psoriasis confined to the left side. Tendon reflexes increased. Sensibility of left side diminished. Temperature of left side higher than that of right. Pain in the upper dorsal vertebræ.

28. Soldier, æt. 23, picture of health. Eruption appeared during time of military service. Sensibility of skin to electric current, greater on diseased parts than on healthy ones. The same was the case with the electro-tactile sense.

The symptoms noted in the above cases may be classed as (*a*) vasomotor, (*b* functional neuroses. They refer chiefly to the action of the heart and blood-vessels, the temperature and the action of the sweat glands. Perspiration is entirely in abeyance on the diseased spots, and when the disorder has lasted for some length of time the apparently healthy skin between the plaques becomes likewise dry. This is clearly demonstrated by injecting pilocarpine; even though the spots are free from scales, they remain perfectly dry. No alteration, however, is to be detected in the sweat glands themselves, and it was a regular occurrence to see such patients perspire most freely from the axilla when being presented in the clinic. Psoriasis must therefore be described as one of the multiple symptoms of a vasomotor neurosis in which disturbances of the circulation of the blood make themselves evident in the skin, in the same manner as they are also freely observed in other organs of the body. It is remarkable that the appearance and reappearance of the eruption always coincides with some deleterious influence of the nervous system. Direct hereditary transmission of the skin disease is very rare, but an enormous percentage of these patients have inherited an abnormal condition of the nervous system in general. This weakness of the nervous system is the chief factor in the development of the disease, for, according to

Professor Polotebnoff, external irritants have very little influence in its production and localization.

Of other concomitant symptoms we must further mention albuminuria. This was observed in three of P.'s cases, disappearing at the same time as the eruption faded. The author thinks that this symptom has not been sufficiently sought after as yet, and that if the urine is more frequently examined in these patients, the symptom will be more frequently found to be present.

Atrophy of the muscles and atrophic striæ of the skin are also occasionally observed, but it is difficult to give a satisfactory explanation of these phenomena. Among other symptoms are pains in various parts of the body, and diseases of the joints and bones. The fact has long been recorded that patients with psoriasis frequently suffer from severe pains, which are generally classed as "rheumatic." P. notices that these pains and swellings of the joints generally coincided with aggravation of the nervous symptoms and fresh eruptions of the skin disease. He thinks it probable that such lesions are also symptoms of vasomotor and functional neuroses. Weir-Mitchell and others have observed that traumatic affections of the nerve trunks occasionally give rise to diseases of the joints. Another point worthy of remark is, that the eruption involves changes in the peripheral nerves. It is usually accompanied by intense pruritus of a distressing nature; further, the sense of touch and temperature is always more or less diminished, even complete analgesia being occasionally observed.

As regards treatment, Professor Polotebnoff directs his attention almost wholly to the condition of the nervous system. It has been remarked that psoriasis occasionally seems to heal spontaneously. This quite agrees with the views here set forth; as soon as the primary cause of the eruption is removed, the latter will tend to recover. In this manner the beneficial influence of sea-bathing becomes more intelligible. The author warmly recommends this remedy. In case the cold sea-water should prove too great a tax on the strength of the patient, warm baths may be given at first. Of medicaments, the most useful are the bromine salts, bromide of potassium, bromide of sodium, and hydro-bromide of quinine. These are indicated wherever the acute nervous symptoms are very prominent. As soon as these are allayed, and even before that, P. gives arsenic most extensively. This drug has been shown to have a special affinity for nerve tissues. Skolobusow found in acute and chronic poisoning with arsenic that the brain and the medulla oblongata contained thirty times as much of the drug as the liver and muscles, and Lesser's experiments are still more conclusive.

The dose must be large, amounting, by gradual increase, to as much as half a grain to a grain or more of arsenious acid a day, for a week, or a fortnight.

Relapses must naturally be looked for, as the primary vasomotor and functional neurosis is not to be healed at once and for ever. Besides, inveterate cases in which organic changes of the nerve tissues have taken place will naturally resist arsenic even in large doses.

Ergot the author considers as worthy of more extensive trials than have hitherto been accorded to it. Cold packs, tar, chrysarobin, pyrogallic acid also have been proved to be useful. The latter remedies, though externally applied, may, the author thinks, also act as nervine tonics through the skin.

PHILIPPI.

THERAPEUTIC NOTES.

TREATMENT OF CHRONIC ECZEMA BY CREOLIN.

Dr. R. Glasgow Patteson (*Dublin Journ. of Med. Sciences*, July, 1891) recommends the treatment of chronic eczema by creolin lotion, of the strength of ʒj. to aqua ℥viii. The parts affected, having been freed from crusts or other accumulations by appropriate means, should be freely bathed in the fresh emulsion for from ten to fifteen minutes. If the disease is in the acute stage, or if there is much secretion, lint soaked in the liquid may be applied over the parts and retained in position by suitable dressings. But if the eczema is of the squamous type, treatment in the intervals is best carried out by means of ointments—that which has yielded in his hands the best results being one composed of zinc oxyde, white precipitate and the glycerine of the subacetate of lead. Under this treatment recent cases recover with astonishing rapidity, and even cases of long standing soon show signs of improvement which go on to complete and permanent recovery.

TREATMENT OF SENILE PRURIGO.

E. Besnier (*Union Medicale*) employs the following:—

℞	Acid phenic	4 parts.
	Acid Acet. Aromat.	200 „

Dissolve:—wash the whole surface of the body every evening with water at a temperature of 40 C. (about 100° Fahr.) to which is added per litre (a little less than a quart) two tablespoonfuls of the above lotion. Dry, and then powder the skin with one or other of the following preparations:—

	Salicylate of Bismuth	20 parts
	Powdered starch	90 „
or	Finely powdered salicylic acid	20 „
	Powdered starch	180 „

Starch or bran bath is also recommended [presumably on the following morning.—A. E.].

Journ. des Malad. Cutan.

POWDER FOR HERPES GENITALIS.

E. Besnier recommends (*Un. Méd.*):—

℞	Acid tannic pulv.	5 parts
	Bismuth subnitrat	1 „
	Pulv. Amyli	100 „

M.

The part affected with herpes is washed with a very weak solution of pure carbolic acid and water and then dusted with the above powder. If ulcers follow the attack, employ astringent dressings, and lastly, if the skin become too dry, apply ointments made up with vaseline.

Journ. des Malad. Cutan.

A PASTE FOR ACNE.

Kaposi (*Un. Méd.*) uses the following:—

℞ Sulphuris (precipitat and lav.)
Glycerini pur.
Pot. Bicarb.
Aq. Laur. Cerasi
Spirit (*Montpellier*) āā 10 parts
F. s. a.

After a thorough washing with soap and water the part affected is spread over with this paste, which is left on all night. Next morning the paste is removed and replaced by zinc ointment or glycerine.

Journal des Malad. Cutan.

TREATMENT OF LUPUS ERYTHEMATOSUS OF THE EYELIDS AND FACE.

Brocq (*Revue d'Ophthalmologie*, 1890, 9, *& Un. Méd.*) recommends the application of a pomade composed as follows:—

℞ Acid Salicyl. . . .	ʒss.
Acid lactic	ʒss.
Resorcini	gr. 45
Zinci Oxid	ʒii.
Vaselini pur. . . .	ʒxvii.

M. s. a.

The same author also states that the following preparation is well borne as a rule:—

℞ Acid salicyl. . . .	1 part
Acid pyrogall . . .	2 parts
Vaselini pur. . . .	20 „

This ointment is applied during the night. During the day it can be substituted alternately by the resorcine, the formula for which is given above.

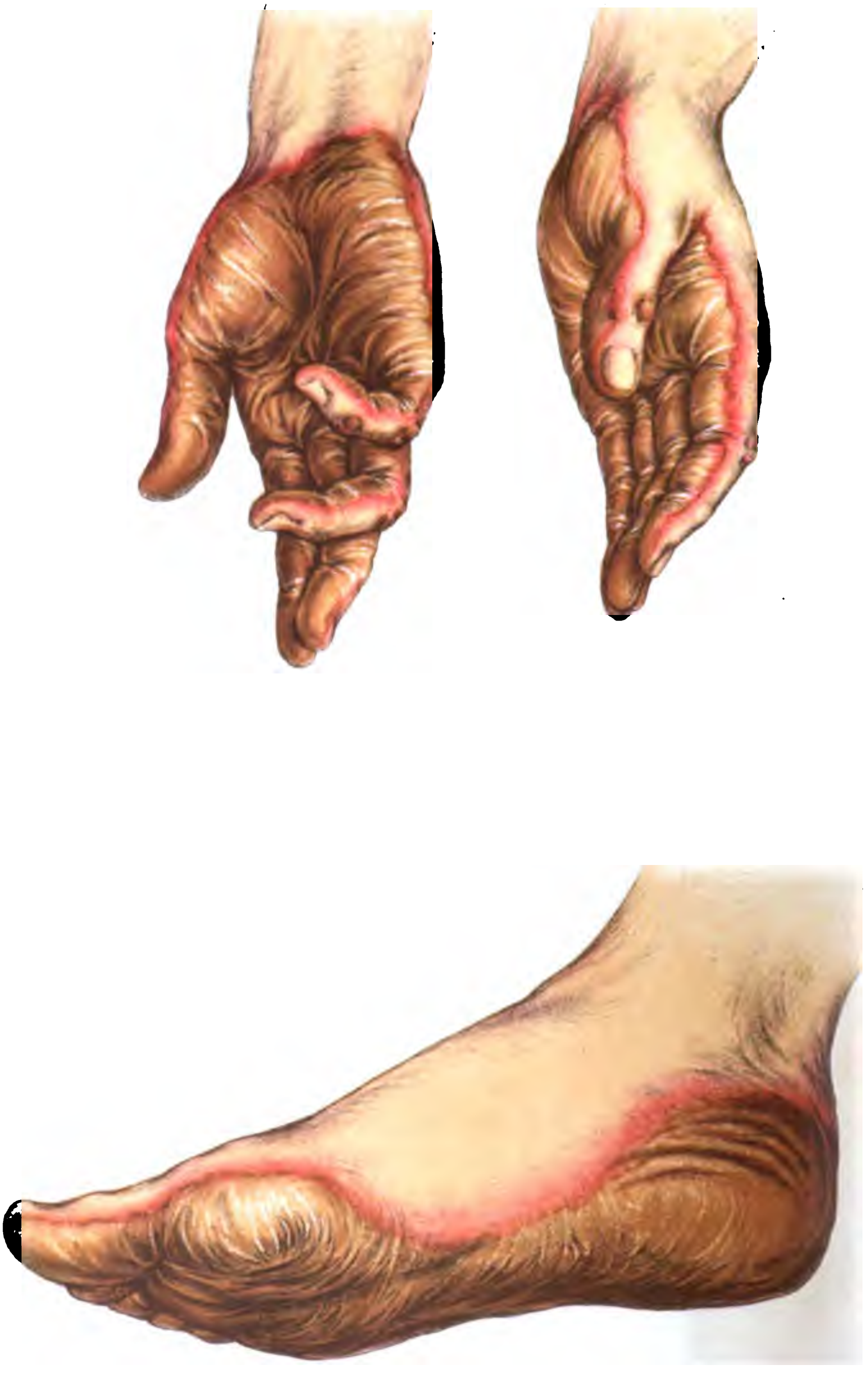
CREOLINE AS A DEODORANT OF IODOFORM.

Vaczi strongly recommends (*Med. chir. Rudsch* 1891, No. 2, p. 54) the following mixture as a complete deodorant of iodoform. The odour of creoline is only perceptible at very close quarters, and the creoline itself causes no local irritation.

Iodoform	2 parts
Creolin	1 „
Vaselini	25 „

M. D. S.—The ointment; for external use.

Journ. des. Malad. Cutan.



ERYTHEMA KERATODES.

H G BROOKE

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ERYTHEMA KERATODES OF PALMS AND SOLES.

BY H. G. BROOKE.

In the January number of this Journal for the current year I briefly described a curious horny erythematous affection of the palms and soles which was quite new to me and of which I could find no mention by any previous observer.* Within a few weeks of the visit of the patient, and whilst the notes of her case were in the printer's hands, a second example presented itself, which resembled the first in every way, except that the symptoms were of a more marked character. As no one with whom I spoke had seen a similar condition, I thought it would be interesting to publish an illustration of it, with a few further notes as to the progress of these two cases.

For the convenience of the reader the short account of the first patient previously given may be reproduced here. Miss G., æt. 47, consulted me in October, 1890, on account of a chronic inflammatory condition of the hands and feet, which both caused her pain and interfered with her movements. The fingers, and the outer edge of both palms for about an inch in breadth, were swollen as well as inflamed. The inflammation was not very acute, but the affected area was of a deep, dusky red, hot and very tense to the feel. It was sharply bounded by an arched line passing from the thenar to the hypothenar eminences with a distal curve. On the dorsal surfaces, which were not so much affected, the inflammatory condition extended only to the base of the digits. The epithelial covering of the palmar surfaces of the affected area, with the exception of an edge of about a quarter of an inch in breadth, was hard, dry, and so distinctly thickened as to partially mask the subjacent colour and produce a dirty orange-grey tint. The nature of this change seemed to be purely hypertrophic, the epithelium being yellowish, slightly translucent, pliant, free from cracks, and retaining quite clearly the superficial markings. There was a dull pain in the affected area, and on account of the tenderness and œdema the movements were very much impeded, so much so as to render it impossible to close the hand.

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* "Notes on some Keratoses of the Palms and Soles;" Erythematous Keratosis.

On the middle half of the soles there was no inflammation, nor other abnormality, but the epithelium of the heels, balls of the feet and under surfaces of the toes was so distinctly hypertrophied that walking was rendered actually painful. The nails of the fingers were streaked and slightly pitted; in those of the feet there was well-marked hyperkeratosis subungualis.

There was some seborrhœa of the scalp and face, with a *little* rosacea; the rest of the skin, however, so far as I had an opportunity of examining it, appeared perfectly healthy. The patient assured me that there were no lesions elsewhere, and that with the exception of some nervousness and flatulent dyspepsia she was otherwise in fair health.

She herself attributed the origin of the affection to the action of some strong carbolic lotion in which she had her hands continually immersed whilst assisting at a prolonged surgical operation two years before. She had experienced the usual numbness and tingling, seemingly in somewhat marked degree; but instead of passing off as it usually does, it had "continued ever since." The circumscribed erythema had supervened shortly afterwards, and within six months had reached the condition in which I saw it on the occasion of her first visit. During the whole of the intervening time it had remained unaltered. After the operation she had nursed the patient for some months, and owing to anxiety and overwork she became debilitated and atonic; but when she first came to me she had, with the exception of the dyspepsia, recovered her former state of health.

As treatment I ordered for her ichthyol (3 min.) in capsules, to be taken thrice daily, and the constant application of an ointment containing ichthyol and salicylic acid. This was so far successful that when I saw her three weeks later the erythema and œdema had disappeared almost completely, the hand could be closed and used without pain, and very little was left but some thickened epidermis. The thickening was most marked towards the edges of the affected area.

There was one peculiar feature which I did not record in my previous description, not feeling sure that it was an intrinsic part of the disease until I saw it even more strikingly marked on the second case. On the dorsal aspect of the finger-joints and on that of the thumb (but not on the metacarpo-phalangeal joints) were developed more or less symmetrical pairs of erythematous papules, some of which were horny, others like simple reddened prominences of ordinary skin. Their distribution and the relative size of the individual members of the pairs, as well as the extent of the horny development which they had undergone, seemed somewhat capricious, some joints being but slightly affected, others provided with a pair of round horny bosses, and others again with an unequal yoke, one papule being but small and slightly erythematous, the other horny and well developed. This condition was not found upon the toes.

Case II.—Mrs. T., æt. 27, was sent to me by a medical man in December of last year, complaining of precisely the same symptoms, redness and swelling of the palms and soles, which prevented her from closing her hands and from walking with comfort. A momentary glance showed that the affection was the exact counterpart of that from which the former patient had suffered, but more extensively developed. The accompanying chromolithograph is a copy of a water-colour sketch of the hands and one foot which I made on the following day. It will be seen that on the hands the erythematous area covers the whole of the palm, but does not extend beyond it. On the fingers and thumb, however, it passes somewhat on to the dorsal aspect in places. The area, like that of Case I, is continuous, but is more extensive; it presents the same sharply defined erythematous line surrounding the thickened epithelium. It is also evident, from the œdema, heat, and the red shade which shines through, that the erythematous base is continued beneath this dense upper skin. Beyond its outer line all is normal. The thickening is greatest on the palms, and fades away gradually towards the finger-tips, where it is not much greater than the normal. The papules on the finger-joints are well developed, those represented in the plate showing the thick yellowish horny nodules.

The same keratinization was found on the feet, but in less degree. With the exception of the hollow on the inner side, the sole was completely covered with thickened epidermis, which extended up behind on to the tendo Achillis, and passed up on the side to where the delicate skin of the dorsum commences. On the inner side of each heel there were two horizontal ridges of thickened epithelium. All round this heel-patch there was a distinct erythematous edge, and there was some slight diffuse erythema on the inner side of the great toe. The under surface of the toes was thickened and hard, but there was not any apparent affection of the nails or nail-beds.

This patient was unable to assign any cause for her trouble; it had come on gradually in the course of about ten weeks. Red patches were first noticed on the hypothenar eminences, quickly followed by a similar development on the thenar areas, and after a very short time the fingers began to be inflamed. The separate patches soon merged into one. The thickening of the epithelium very quickly followed the first signs of inflammation, and was quite distinct before the fusion took place. She was quite sure that the condition was neither caused nor aggravated by the use of the hands, for having been in ill health for twelve months she had not taken any part in the work of her house. She also was suffering at the time from some dyspepsia, and had, moreover, been for several years afflicted with a uterine disorder, apparently metritis; this seemed, from the history, to be of gonorrhœal origin, but I was prevented by reasons of professional etiquette from making further investigation on this point. She assured me that the two conditions had not varied together, and she was certain that no abnormal sensations in the extremities had preceded the appearance of the erythema.

A few days ago (September 10th) the first patient, Miss G., again came to consult me. Since the beginning of last December, when the last traces of any active condition had completely disappeared, she had remained free from relapse until two months ago. The hands and feet then commenced to redden again and become painful, and the previous treatment, which she resumed on her own account, seemed to be only partially successful in relieving her. On examination it was found that there was distinct erythema of the old areas on the hand, and that there was also erythema of the heel, which was not present on her former visits. There was no swelling, the epithelium over the fingers was not thickened. There was slight perspiration, but not more than was explicable by the great heat of the weather, and certainly nothing akin to the hyperidrosis which Crocker describes as often accompanying palmar thickenings. During the acute erythematous stage I saw no sign of sensible perspiration in either patient, nor did they complain of the hands or feet even being moist.

It was now possible, owing to the absence of œdema and dense epithelium, to determine that the erythema, the basis of the whole affection, was not accompanied by any anæsthesia or paræsthesia.

The horny thickening had by no means disappeared, but was chiefly confined to the borders of the original area, where it constituted, in some places, an actual linear ridge. Some of the bosses on the finger-joints had developed and become much larger and harder, others remained as soft papules, which were now again erythematous, and others again had almost vanished. On the palms several small points were noticed, in which the hardened epithelium had apparently produced small circular atrophic depressions. She also showed me, now for the first time, a red scaly patch on each knee, which, she said, had appeared at the time of the first attack. They precisely resembled the thickenings so often seen on the knees of housemaids, but they were certainly not due to the same cause in her case. The elbows were free. On the palms and soles, which, as she confessed, had received but little attention in the way of treatment, the horny thickening was distinctly greater than it was when I had last seen her. The heels alone showed an erythematous edge; but as the balls of the feet were painful, it is quite possible that they also might have had an erythematous substratum hidden beneath the thickened horny layer.

She complained of feeling nervous, and insisted that when excited or worried the redness and discomfort increased perceptibly. Quite possibly this irritability may have some connection with the approaching climacteric.

On calling recently (September 16th) on Mrs. T. I found her well and strong, and actively engaged in housework. She had had no return of the erythema, and the only remains of the attack were a somewhat slight permanent thickening of the epithelium of the palms. Even this was, in her opinion, largely due to the active employment of the hands in kitchen work ; for during a return of the old uterine trouble a few months ago, when she was obliged to cease working entirely for two or three weeks, they improved considerably. The skin of the soles was also much thinner than when I had seen them before, and the papules were all disappearing from the finger-joints. For months she had done nothing more than apply vaseline to the hands at night, and use pumice-stone freely, in order to keep them smooth and supple. The sensation in both hands and feet was perfect.

These two cases, when compared, will be seen to offer so many points of resemblance as to constitute together a well-marked and distinct clinical picture. In both the main features were a sharply circumscribed chronic erythema of palms and soles, leading to an overgrowth of the horny tissue, and accompanied by so much œdema and tenderness as to cause considerable interference with movement. In both cases there was the same curious development of pairs of more or less horny erythematous nodules on the back of the finger-joints. In both cases the progress of the affection was gradual, and in one case, after attaining a certain stage, had remained without change for many months. Both cases again responded readily to the same treatment.

Owing partly to the site of the lesions, and partly to the rapid effect of the treatment adopted, it was not possible to obtain portions of the skin for microscopic examination, and the pathology must therefore remain for the present a matter of inference. But in making a diagnosis it was important to differentiate this from the various other forms of disease which are already known to be capable of producing a marked palmar or plantar keratosis. Of these we may at once eliminate eczema, psoriasis, syphilis, lichen planus, pityriasis rubra pilaris, ichthyosis and keratoma palmare, and chronic arsenic-poisoning. All were considered, but both the history and the whole of the clinical signs and symptoms were different from those presented by any of these affections. Tylosis may also be set aside, for with the exception of the two or three small hard depressed atrophic points, which were noticed in the hand of the first patient as a late development, there was no further resemblance. The surface of the skin was smooth, and the lines and furrows were preserved.

The only affection which in any degree closely resembles it is the Keratodermia Erythematosa Symmetrica of Besnier,* and even that presents some very distinct points of difference. Besnier does not record the method of origin of the affection which he describes, but I have seen one case recently which closely resembles his figure in the symmetrical distribution of the erythematous islets; the nature of the altered epidermis, which was thick and cracked, the persistence of the lesions and the freedom from all signs of eczema were also identical. The case was in a very much earlier stage than his, but it was obvious that the commencement in no way resembled that of the lesions in my two patients. The keratodermia erythematosa is a continuous disease, which exacerbates, but does not relapse. One of my cases has recovered, the other has relapsed. Both affections are evidently independent of manual work as an exciting cause; but whereas the keratodermia, according to Besnier, is always worse in winter, both my cases steadily improved through a winter of exceptional severity.

As neither of them fitted into any one of the four classes into which he has divided the keratodermic group, and since in both the erythema was so evidently the primary condition, I have ventured to distinguish this form of affection by the name *Erythema Keratodes*, to which the suffix *Symmetricum* might well be added to denote the very marked correspondence of the lesions on the opposite sides. This symmetry, in conjunction with the synchronous implication of both feet and hands, would seem to indicate a central trophoneurosis as the cause. The fact that the condition developed simultaneously on both sides militates against the supposition of a peripheral reflex as the starting point.

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* "International Atlas of Rare Skin Diseases," plate V. fig. 1.

CLINICAL NOTE.

A CASE OF ANGIOKERATOMA.

BY H. RADCLIFFE CROCKER, M.D.

Very few cases of this rare affection are on record, and the present one, though mentioned under Verruca in my work on diseases of the skin, was so briefly there recorded as to have escaped the notice even of Dr. Pringle in his recent careful memoir. It seems worth while, therefore, to give here the few further details of the case that I am able to transcribe from my private case-book. It corresponds closely with the other cases, except that there were when seen none of the simple vascular points, but were all in a warty condition when she first came under observation.

Miss T., æt. 17, first came to me in April 1885. She stated that three years previously she had suffered from bad chilblains, and had applied Goulard's Extract, and that subsequently warts developed on the site of the chilblains; her hands are always cold and clammy. She had on the dorsum of her fingers and knuckles what I regarded at the time as vascular warts. They consisted of flat elevations only slightly raised above the level of the skin, with little horny masses of apparently papular character in the centre, the rest being of deep purple colour, obviously due to venous dilatations, which bled freely when pricked, the blood being very dark.

Her general health was good, and she took active exercise. I ordered her quinine and iron internally, and locally a saturated solution of salicylic acid in flexile collodion. Six weeks later the warts were much better, being flattened down, but the purple spots were still there. I then ordered her a liniment of pepsine and hydrochloric acid to be wrapped round the growths.

On August 21st, the warts, though flatter, were still present. I told her to paint on every day a saturated solution of chromic acid, and have not heard or seen anything of her since. In another case, however, I should certainly employ electrolysis, as Dr. Pringle suggested and used successfully.

REVIEW.

PATHOLOGIE ET TRAITEMENT DES MALADIES DE LA PEAU.*

THE commanding position attained by the Vienna school, and the beneficent influence exercised upon the progress of dermatology by Hebra and his followers, were so great that the issue of the first edition of Professor Kaposi's lectures was regarded as an event of the first importance by those specially interested in diseases of the skin. His exposition was eagerly read, not only by those fortunate enough to study with him, but by the many, all the world over, eager to learn from the representative of such an influential school the accepted views on the actual state of dermatology. Since Hebra's epoch, and even since the issue of the first edition of these lectures, enormous progress has been made, and amongst contributory causes we may specially mention the multiplication of efficient workers in different countries, and the specialization of the study. This progress has taken place all along the line, by more perfect methods of histological research, by the opening of new fields of study, such as bacteriology, by enlarged conceptions of disease processes, by the more exact study of maladies long known and classed, by the recognition of diseased conditions hitherto unknown or confounded in some group,—such as pityriasis rubra follicularis,—by the overhauling and rearrangement of old-established groups of diseases, and lastly, by the keen search for new remedies and the introduction of improved methods of treatment. This advance has not come from one quarter or from one school alone, but the contributors have been many and of various nationalities and provinces. A notable feature also of the present day is the frequent meeting of dermatologists. Facilities of travel, congresses, etc., have brought the workers together, and the acquaintance has stimulated the interest in one another's researches and observations. Thus newly acquired knowledge and fresh theories are now more widely and more quickly disseminated, and are tested and revised by a hundred observers with little delay. With all this activity and ability in so many quarters, the Vienna school fails to continue in that commanding and unapproachable position with which it was lifted by the splendid labours of Hebra and his followers. There are other suns in the firmament, and the light they emit cannot be neglected.

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* *Leçons à l'usage des médecins practiciens et des étudiants par le* PROFESSEUR MORIZ KAPOSI; *traduction avec notes et additions par* MM. ERNEST BESNIER, *Membre de l'Académie de Médicine, Médecin de l'Hôpital Saint-Louis, et* ADRIEN DOYON, *Correspondant de l'Académie de Médecine, Médecin Inspecteur des Eaux d'Uriage. Seconde Edition Française avec figures noires et en couleurs. Paris :* G. MASSON, *Editeur, Libraire de l'Académie de Médicine, 120, Boulevard Saint-Germain, 120. 1891.*

We sat down, then, to peruse these volumes with unusual interest. Professor Kaposi's teaching is characteristically clear, definite, methodical; and the lectures form, no doubt, an admirable handbook. On some subjects the distinguished writer speaks with undeniable authority, *e.g.*, lichen scrofulosorum, sarcoma cutis, impetigo herpetiformis, and so on, and consequently there are chapters which must command the attention of all workers. Moreover, many most interesting cases are referred to in the text. We must, however, confess to a certain feeling of disappointment. We notice throughout a want of elasticity and receptivity towards new ideas and observations. There is a certain stereotyping of thought, so that we seem to be reading over again the older great work of Hebra-Kaposi, with remarks introduced on a few newly observed diseases, and references to the lecturer's later experience. It is only right to bear in mind that Professor Kaposi intended these lectures for students and practitioners, and as a somewhat large manual of dermatology. It is not intended to be a complete reference work. Still, it is obvious that some subjects are not presented in quite such masterly manner as we are entitled to look for in Professor Kaposi's work.

The special views of the Vienna school, inherited from Hebra and formed since then, which many authorities entitled to the greatest respect regard as in some aspects falling short of the whole truth, are urged with an absolutism and dogmatism which arise partly from the eminent position of the exponent and his school, and partly, no doubt, from the fact that these confident views are set forth in lecture form. Of course it is obvious that extended references to the work of others could not well find a place in the lectures, and it is also but natural that the author should feel most confidence in the observations of those with whom he is more intimately acquainted and should quote them, but there are epoch-making researches emanating from other countries which should find mention. For instance, we will point out the omission of Erasmus Wilson's name from the chapter dealing with lichen ruber—an omission which seems almost ungracious.

In this French edition, however, we have additional features which render the volumes one of the most important contributions to dermatological literature made in recent times. It is a matter for warm congratulation that the French school, with its eloquent and distinguished older representatives and band of talented younger workers, should be reasserting its due position. The neighbouring positions of France and England, the close similarity of the types of disease there met with, and the sympathy which has existed with regard to the conceptions of the etiology of skin diseases, conduce to make the success of the French school of great interest to us in England. In the absence of any treatise which can be taken as a complete exposition of the teaching and views of the modern French school, all dermatologists will rejoice at the happy inspiration which prompted Drs. Besnier and Doyon to undertake the laborious task of translating Professor Kaposi's lectures, and adding the copious annotations, commentaries and supplements. The mass of the latter equals in bulk the original, yet we can hardly wish any omitted. If we should add a criticism, it would be that perhaps Dr. Besnier's facile pen and desire to enforce his points have led him here and there to an avoidable expansion of the volumes. We have presented to us here side by side the views of the Vienna and French schools. The criticism on the text, the omissions supplied, and the corrections offered are in our humble judgment admirable, and will commend themselves, we believe, to the majority of English observers. The elaborate appendices supplied by Dr. Besnier are of great interest, and deal with *adénomes sébacés*, *érythèmes pseudo-pyrétiques ou pyrétoides*, the pathogeny of *erythema multiforme*, *bouton endémique d'orient*, *pityriasis rubra pilaire ou folliculaire*, the clinical differentiation of *pityriasis rubra*, *eczéma séborrhéique*, *acnés*, comprising—(1.) *Acnés pilaires* with three chief clinical forms, viz.: *A. pilaire* of Bazin, *A. varioliforme* of Hebra-Kaposi, and *A. necrotica* of Boeck; (2.) *A.*

pilaire cicatricielle dépilante of French authors; (3.) *A. chéloïdienne, A. cornée* or *angio-folliculite kératosique simple;* (4.) *Psorospermose folliculaire végétante* of Darier; (5.) *Folliculites et perifolliculites agminées, le pemphigus et les pemphigoïdes*, which includes a discussion of Duhring's dermatitis herpetiformis, *Xérodermie pilaire, tuberculose lupique, transmissibilité de la lèpre, épithéliomatose eczématoïde de la mamelle, des leuco-keratoses des muqueuses, etc., traitement des épithéliodermes superficiels, diagnostic du chancre syphilitique, aperçu sur le traitement du prurit cutané, traitement méthodique du Favus, aperçu sur la trichophytie des parties glabres, pityriasis rosée de Guibert, traitement de la trichophytie du cuir chévelu, érythrasma.* In addition, some of the notes, especially on the new growths, are very extended. The French editors have also added voluminous bibliographical references. One of their objects in undertaking this arduous editing was to present to the world some collected information on the contributions of French dermatologists, and consequently we find especial references to such researches. The editors, however, have added many others, and show a wide acquaintance with the literature of the subjects handled; and, moreover, exhibit a generous and just appreciation of the work of other labourers. By such additions these French volumes have been made storehouses of valuable information, and reference books which every one interested in dermatology will need to keep at his side.

It would be quite impossible to go over each chapter and offer criticisms in detail, and we must content ourselves with remarking on a few chief features. Under *Symptomatology* Drs. Besniers and Doyon deal with the very important subject of the definitions of the elementary lesions of the skin. For instance, they insist that it is neither the volume, the consistence, the mode of evolution or involution which differentiates the papule from the tubercle, but the latter term implies a profound intradermic evolution, whilst the papule arises in the upper layers and points upwards. The whole subject requires revision and the establishment of some closer agreement amongst dermatologists. The notes to the chapter on etiology reveal an enormous and welcome advance. Kaposi asserts that there is no justification for the statement that the Vienna school take no account of constitutional and internal causes of skin diseases. On the contrary he is constantly endeavouring to unravel the relations which exist between diseases of the skin and other organs, but where vague and incomprehensible he prefers to conceive the dermatonosis as a concrete pathological phenomenon rather than push to the front a hypothetical state. English conceptions of the etiology of disease have in many points been in sympathy, though not in harmony, with those held in France, and we therefore quote the following passage:—"For independent minds, seeking not to employ words to which a precise signification does not attach, we will recall that the physicians, who to-day teach dermatology in the Hôpital St. Louis, neither admit the old *herpétisme*, nor the *dartre* of Hardy, nor even the *herpétisme* of Bazin, any more than the composite conception which Lancereaux has decorated with the same title. For presence of a dermatonosis they carefully seek in the antecedents and in the actual state of the patient, in the examination of all the organs and of all the functions, made conformably to the most advanced progress of actual science, all the information which can advance the diagnosis and the treatment, but without any preoccupation of doctrine or of system." In these admirable views everyone will agree, but in practice their application will continue to disclose important differences in our conception of the correct etiology and treatment. In France the term *lymphatisme* is used to denote the ancient scrofula disengaged from tuberculosis. The different views held by the Vienna and French schools are strongly contrasted in the section dealing with *Treatment*. Nowhere is Professor Kaposi's conservatism more noticeable. He quite fails to do justice to the good points in the methods of treatment carried out by other observers, such as Unna, and gives a most inadequate discussion of the various topical remedies and methods. We hoped to find, but look in vain for, a masterly analysis of the various successful methods practised in different countries, and for an adequate exposition of the principles of treatment. Many of his methods appear to us rough and crude, whilst much of the French treatment is apt to be theoretical and too elaborate. The caoutchouc dressings, so warmly recommended, are but little used, we believe, in England. It is remarkable that Professor Kaposi has not even used any of the oleates, and Drs. Besnier and Doyon say they have abandoned their use after a short experimentation.

The section dealing with seborrhœa will be read with interest. Professor Kaposi regards this condition as an abnormally augmented secretion of sebum, and quite adheres to the familiar lines of Hebra's work. Dr. Besnier, however, quite accepts the existence of a true sebaceous eczema. We refer the reader to Kaposi's treatment of seborrhœa as most crude and imperfect. We find no mention of the comedones of children. Kaposi no longer denies the contagion of molluscum contagiosum, and amongst Besnier's references we miss any allusion to Paterson's earliest successful inoculation. We are puzzled that we find only the very briefest allusion to the lichen urticatus of Bateman, a malady so frequent in this country, nor does Besnier help us in the matter. An illustration of the proverb that "there are none so blind as those who will not see" occurs *àpropos* of erythema exsudativum multiforme, for Professor Kaposi remarks, "Besides these objective phenomena, I have no other phenomena to signal, notably not fever, nor subjective symptoms worthy of attention;" and turning to Herpes iris, which is still described in connection with Zoster, we find no mention of any constitutional disturbance. We have always thought the description of the evolution of Zoster patches, viz., that the vesicles arise secondarily on a primary erythematous patch, to be incorrect. Surely the erythematous patch is formed by a confluence of lesions. Another error in observation, corrected we are glad to see by the editors, gives the papules of psoriasis no scales at the earliest period of evolution. Under "multiple cachectic gangrene" of the skin we are disappointed to find no mention of the "burnt holes" of the Irish, and of the Guy's Hospital models of rupia escharotica. Professor Kaposi seems to accept without question the existence of so-called spontaneous gangrene in hysterical girls. In connection with the editor's appendix on pityriasis rubra pilaris, an affection not admitted by Professor Kaposi, we would call attention to an important case described and discussed by Hilton Fagge under the name *Rhinoderma* in the Guy's Hospital Reports. There is no doubt the recognition of the disease marks an important advance. In this connection we may refer to Hebra's lichen ruber acuminatus, to which Professor Kaposi adheres, though Dr. Besnier thinks these cases consisted probably of several different affections. In relation to this mysterious group we will call attention to a case of *pityriasis rubra generalis*, which probably ended fatally, "as such cases usually do," recorded by the late Mr. Startin in his lecture published in 1846 in the *Medical Times and Gazette*. Wilson's name can never be forgotten in connection with lichen planus, but since his masterly description many other phases have been recognized, which find inadequate notice in these lectures. A more extended supplementary account of these conditions by the editors would have proved very acceptable. We know little in England of urticarial, pemphigoid and zosteroid complications, nor do we find males attacked so frequently. With regard to eczema Professor Kaposi keeps to the old lines laid down by Hebra, and his net is so wide that he even includes impetigo contagiosa. A criticism of this position is superfluous here, because we entirely adopt the wider views so ably expressed in the notes on pp. 649–50 of the first volume:—"The moment cannot be far distant when it will be necessary to dismember the composite group and undertake for 'eczema' the work of revision and purification in course of execution for the entire series of affections of the skin. It will be necessary to do for eczema what has been already done for herpes, pemphigus, lichen, etc., which will soon have lost the greatest advantage of precision in dermatological language, the illimitable and purely objective signification. . . ." The editors confidently advocate the use of the denomination *Prurigo of Hebra* for the well-known affection associated with Hebra's name; but we cannot agree that there are conditions which it is desirable to denominate "prurigo pédiculaire," "prurigo sénile," "prurigo de la vulve, du scrotum et de l'anus." In discussing Duhring's conception of dermatitis herpetiformis, which Professor Kaposi will not agree to, the editors say: "But before Duhring no one had, in reality, conceived and realized the project of reuniting all these facts dispersed under the most diverse denominations, and of constituting them . . . . in a definite morbid individuality of which they would be only species, forms and varieties." Without in the least degree seeking to detract from the brilliant generalization of Duhring, we protest against this statement, and refer to the distinct attempt on these very lines made by Tilbury Fox (*A Clinical Study of Hydroa, Bulkley's Archives of Derm.*, Vol. vi., *1880*). We think that scant justice in this matter has been done to this author. It would be a great gain if some agreement could be come to in the nomenclature of some follicular affections. At present we have lichen pilaris, keratosis pilaris, pityriasis pilaris, acné cornée, ichthyosis pilaris, xeroderma pilaris, folliculitis rubra, and so on, often used in a most confusing way. We cannot identify in these volumes, unless under acné cornée, a well-known affection of childhood, sometimes called with us keratosis pilaris, and distinct from lichen scrofulosorum, in which groups of miliary papules with projecting spines form about the follicles, chiefly on the limbs. Professor Kaposi has at last admitted that ichthyosis may be congenital, but he still refuses to admit "morphœa" as a local scleroderma. In the historical account of morphœa the editors have omitted the remarkable papers by Hilton Fagge in the Guy's Hospital Reports for 1868. Lupus erythematosus is included by Professor Kaposi, curiously enough, amongst the atrophies, but the editors still maintain its scrofulo-tuberculous nature. Similarly it is well known that the author and his translators hold divergent views with regard to the lupus of Willan, and here again the Professor lags behind the times.

The whole of the chapters on New Growths and Parasitic Affections are replete with interest. Professor Kaposi's text cannot be without interest to dermatologists because of his talents, his position, and his enormous experience, but we see throughout the work evidence of his ultra-conservatism and tenacity of opinion. Dr. Besnier's views are far more elastic and in sympathy with the general current of dermatological progress. Medicine is under a debt of gratitude *to him* for having undertaken this laborious task, and given us the fruits of his vast experience.

In conclusion, we will refer to two matters which suggest themselves. Throughout these volumes we are oppressed by the sense that the work (chiefly clinical) done in our own country is too often *overlooked* by being buried away in hospital reports, transactions of societies, etc., which are practically inaccessible. We trust that the Journal of Dermatology will prove a medium by which all the valuable contributions to the study of skin diseases will find a circulation; and, secondly, let us add a word on the teaching of dermatology *with* us. The multiplication of teaching centres in connection with the general and special hospitals has its advantages for students, but it *makes* it difficult for the teachers to impart all grades of instruction. Will the day ever come when we shall see, in addition to the present facilities, a central institution worthy of London, worked by the best staff that can be obtained, where teaching, suitable to all grades, may be carried out as in Vienna and Paris, and where the researches, necessary *in* all modern work, may be undertaken?

T. COLCOTT FOX.

A RECENT VISIT TO DR. UNNA'S CLINIC IN HAMBURG.

BY ALFRED EDDOWES, M.D. EDIN.

Many of your readers will remember the excellent account by Dr. Brooke of his visit to Dr. Unna's clinic in Hamburg, which appeared in this Journal in 1889.

I was at that time studying with Dr. Unna, and was much interested in many of the subjects dealt with by Dr. Brooke. His letter leaves little to be said about the general arrangements for carrying on the work at that very active centre of dermatology.

It is with pleasure, however, that I accept the suggestion that I should communicate to this Journal an account of a recent visit which I have paid to that clinic, after an interval of about eighteen months.

During this interval, some changes have occurred in the laboratory, which had, perhaps, be better mentioned before passing on to the consideration of a few of the most interesting cases now under treatment in the clinic.

Instead of there being two qualified medical assistants, as was formerly the case, one for histology, the other for bacteriology, for some time past a non-medical assistant has been employed, who resides on the premises, his duties being to attend constantly to the work of the histological laboratory. He is skilful in photography and drawing, and has had already much experience in the use of the microtome and staining of sections. He is the son of the late Mr. Colboun, by whose death the establishment has sustained a very great loss, as all Dr. Unna's former pupils will readily understand. Not only was Mr. Colboun an accomplished artist, whose place it must be very difficult to fill, but he was a genial friend and companion to work with.

Nevertheless, there has not been any relaxation in the active pursuit of scientific research, and in evidence of this it is only necessary to refer to some of the various papers emanating from that laboratory, which were read during the recent congress of natural scientists and medical men at Halle.

The reason for this continued activity is not far to seek, and is explained by the fact that Dr. Unna himself is freer than formerly to devote himself to scientific work, in consequence of his having the assistance of experienced physicians in his clinic, consultation-room in the city, and in the polyclinics.

I believe it was generally understood, anteriorly to the occurrence of the above-mentioned alterations, that it was not advisable for medical men to commence their studies with Dr. Unna without having previously acquired some elementary knowledge of histology and bacteriology, but now it is more necessary than hitherto that such gentlemen should have acquired some knowledge, at least, of the ordinary methods employed in these particular branches of science, before proceeding to Hamburg.

I am indebted to Dr. Unna for personally supplying me with the following particulars, which will be useful to those who have not yet visited his clinic, but who may desire to do so, and for the sake of convenience we may divide these visitors into three classes:

1. Those who wish to study with a view of acquiring special knowledge of dermatology.

2. Those who have some such knowledge, and wish to carry on some special scientific research with Dr. Unna's supervision and assistance.

3. Dermatologists who may wish simply to visit the clinic for a few days.

As regards the first, these gentlemen, if they possess but a slight practical acquaintance with histology and bacteriology, should study these subjects at some medical school or university before proceeding to Dr. Unna. Each gentleman should have his own microscope. It is scarcely necessary to remark that he who does not possess a suitable one, may confidently leave his selection until he arrives at the clinic. It is not an uncommon occurrence to discover faults in instruments overlooked at the time of purchase. A good instrument can be bought in Germany for £15 and upwards, and can be had on trial, during which period the opinion of those working in the laboratory can be always obtained. In fact, the arrival of a new microscope is always an interesting event, productive of very lively criticism, and the merits of the instrument are very soon put to the test.

It is of course self-evident that some knowledge of the German language is of very great advantage, though the English language is very frequently heard on all sides, and one can get along fairly well with but slight acquaintance with German. The shortest period for which these gentlemen are received is six months.

With reference to the second class, dermatologists in practice, who may wish to complete some special histological or bacteriological inquiry with Dr. Unna's assistance, are always welcome, and may be received for a month or so by arrangement.

Dr. Unna has taken great pains to have as large a stock of material as possible ready for study; but as such material is necessarily somewhat restricted, it is very desirable that each man should take with him, if possible, specimens or other material which it is his intention to investigate.

As to the third class, any known dermatologist wishing to visit the clinic for a few days is always welcome.

A very useful addition has recently been made to the laboratory apparatus. I refer to Dr. Unna's Steam Filter, of his own invention. It is very simple in construction and very rapid in operation. Its advantages over previous filters will be at once appreciated when I state that it is capable of filtering infusions of agar up to 4 per cent., if necessary, and can filter as much in a few hours as formerly required a day or two. This is effected by means of an ordinary strong funnel placed in a copper boiler.

The filter being charged, the boiler is covered by a strong lid, tightly screwed down so that the whole vessel is air-tight, with the exception of the outlet through the funnel. By this means, when the apparatus is heated, the agar solution is raised to a higher temperature than was previously attainable during the process of filtering, and a first stage of sterilization is effected; of course the pressure of the steam very much hastens the flow of the fluid through the filter-paper. No danger from explosion is incurred, as in the event of the pressure becoming accidentally too great, the filter-paper gives way and the whole contents of the funnel are forced rapidly through, and the vessel can be re-charged. The filter is made by Bauer & Häselbarth, of Hamburg, from whom I have obtained one for my own use, which I shall be happy to show to anyone interested.

THE NEW POLYCLINIC.

Dr. Unna has recently accepted the charge of the Skin Department in the Polyclinic attached to the new Jewish Hospital in the district of St. Pauli, where his assistant, Dr. Buri, attends every day at twelve o'clock. The Old Polyclinic, in Weg Strasse, is still carried on under the immediate care of Dr. Leistikow. This arrangement promises to supply in time much more material than has hitherto been available for teaching purposes in the Out-patient Department, a want that I think was felt by many of Dr. Unna's former pupils.

CASES IN THE CLINIC.

There are at the present moment four lepers in the clinic, all of whom seem to be relieved more or less by treatment. Another case of leprosy which has recently left the clinic, and which I had the opportunity of seeing once, has been so much benefitted by treatment that it is scarcely possible to recognize, from his present appearance, that he has had an universal and severe leprous skin affection. The treatment now adopted is practically on the same lines as that previously practised in the clinic, namely, the application of reducing agents externally on a large scale, which I would detail, but that I understand Dr. Unna himself will in a short time publish a communication on the subject. So far as I have observed during my short visit, he administers internally ichthyol, as formerly recommended by himself, and chaulmoogra oil in large doses, as advocated by Vidal and others.

CASE OF ŒDEMA CIRCUMSCRIPTUM. (Quincke's Disease.)

The patient is a mechanic, twenty-six years of age, and was subject to recurring herpes preputialis. The present disease began with swelling, itching, redness and stiffness of the fingers, the itching disappearing whenever the wheals were fully developed. The wheals disappeared after a few hours, and fresh ones reappeared in other parts of either the trunk or limbs. Some of the wheals were as large as the palm of the hand, fresh ones being frequently noticed by the patient on awaking. On the first morning after admission a swelling appeared on the left buccal mucous membrane, and another on the same side of the tongue. He is said to have never suffered from disturbance of stomach or bowels.

The wheals were of two kinds, the common, raised, superficial wheal, and a cutaneous and subcutaneous circumscribed œdema, showing relatively a much less marked prominence on the surface of the skin. Both kinds were ushered in with itching, which subjective symptom disappeared as soon as the wheal was developed. Both varieties of wheals occurred here and there without regular order, over the whole body. On the palms, fingers and soles, the appearances were somewhat different, and in the latter position they were accompanied by very great pain. The swellings here were more diffuse and not so raised, and the infiltration was so great as to interfere with the movements of the joints. This patient has been in the clinic two months, during which time the eruption has varied much in intensity and extent without any apparent cause, and has not been clearly influenced by treatment. For some weeks past a different eruption has appeared, either together with the two forms of wheals or, as it were, replacing them, which has been described as a localized erythema papulatum and gyratum. At the present time the patient is in a much more comfortable condition, suffering from fewer and less severe outbreaks. His treatment at first consisted of cold douches morning and evening; internally, ichthyol; later on, atropine; and latterly, chloral at night.

CASE OF SUSPECTED SYPHILIS.

As this case was attracting considerable attention in the clinic, I will give rather full notes of it.

The patient was twenty-seven years of age, and had had a child in April last. The child is with her at the present time in the clinic, and is the picture of health. At the end of May last, the patient noticed for the first time patches on her hands. Then some appeared on the feet, and next on the face. Her face was then treated for acne with boracic acid ointment, with a negative result. She remained without further treatment until the end of August, at which time she went into the clinic. Her present condition is as follows: somewhat anæmic, appears to have lost flesh recently, skin is lax. Upon taking a general view of the patient, one observes a slight redness symmetrically occupying the central parts of the face, and widely separated red patches on the neck, chest, back and extremities, also in a generally symmetrical arrangement. A closer examination shows that the single efflorescences on the face consist of papules of the size of millet-seeds, of a normal or slightly redder colour, some of them having a yellowish apex like an ordinary acne. These efflorescences are densely crowded together on the forehead, nose and neighbouring parts of the cheeks and upper lip, as well as on the chin. On the cheeks and side of the face they are much more disseminated. On the side of the neck the patches are formed of essentially the same kind of efflorescences, but they are grouped together more or less in circles. On the back we see similar papules, but here they have a more inflammatory appearance, but are fewer in number. The skin in general on the back is rough, and here and there exhibits small groups of lichen pilaris. A few similar patches are to be seen on the chest; the abdomen is free from them. The skin of the arms is rough, and shows lichen pilaris. On the forearms, the papules, single as well as grouped, show distinct signs of inflammation. The largest-sized groups are situated near the hands, are of a dark red colour, and are surmounted by small yellowish scabs, which on being removed disclose minute points of pus. These last-mentioned patches are somewhat tender. On the palms and neighbouring parts of the fingers there are similarly formed patches. The thighs are free, but there are some patches on the legs. The inner borders of the feet are similarly affected and on each heel there is a patch as large as a crown-piece, covered by a dirty-grey scab, which is removed with difficulty. When removed, minute points of pus are exposed. These patches are decidedly painful. The genitals are unaffected. The examination of the mouth showed two erosions on the upper lip and erosions on both tonsils.

The points of interest in this case are very obviously the absence of the history of syphilis, the symmetrical distribution of the eruption, and the unusual appearance of the grouped papules, and the recent birth of a perfectly healthy child. It suggests the possibility of some unusual mixed infection, after the manner of those cases described by Dr. Unna of eczemas upon a syphilitic base, but this particular case is certainly not an eczema.

HYPERIDROSIS NASI.

The patient is a young labourer, eighteen years of age. During the last four months he has noticed a profuse perspiration over the end of his nose. While in the clinic he has been operated upon for nasal polypi. His general health is good. The perspiration has been constant night and day during hot and cold weather, and has been sufficiently copious to drip from the end of the nose unless wiped away. The skin of the forehead above and between the eyebrows, as well as that of the upper part of the nose, upper lip and chin, also perspires abnormally, much more than that of the rest of the face, but in no comparison to that on the tip of the nose. The sweat is clear and colourless. When formed more slowly than usual, and wiped away, the fresh secretion, while small in quantity, gave an acid reaction, for a time; but after a few minutes, when the drops attained a considerable size, they showed an alkaline reaction. When unusually profuse the secretion was neutral. No fatty matter was discovered in the perspiration, and there were no morphological elements found in it under the microscope.

During the past three months a large variety of remedies has been employed, on the whole with unsatisfactory results; but on my leaving the clinic it seemed to me a great change for the better had taken place within the last two weeks.

PEMPHIGUS FOLIACEUS.

The patient is a carpenter, aged 41. The disease commenced in August, 1890, with an outbreak of "blisters" on the arms and thighs, accompanied by a burning sensation, the eruption extending during some months, so that it ultimately affected the whole surface of the body, including the hands, feet, face and scalp.

After being treated by local medical men, he saw a specialist from Berlin, who diagnosed his case as one of pemphigus.

When admitted into Dr. Unna's clinic there were no vesicles visible, but the whole of the skin was œdematous, red and covered by scales, and the larger portion of the surface was exuding. This condition of the skin continued for several months, and exhibited from time to time exacerbations, which both the patient himself and the medical attendants remarked to recur every three or four weeks with striking regularity. Not only were the redness, swelling and discharge increased at these times, but the patient's general condition became worse, and he was troubled with more uneasiness in his skin, as well as internal pains and aching in his limbs. In the intervals between these exacerbations his functions were quite normal.

Treatment.—For six months the patient remained constantly in a water-bath, to which sulphate of iron and tannic acid were *added*; in fact, he was immersed in an ink-bath. Tincture of iodine, solution of nitrate of silver, methylene blue, tar, &c., were also employed. Under this treatment the swelling, redness and discharge decreased. A thick, horny layer formed which, on removal, showed a new horny layer forming underneath. For the last two months he has *been* out of the bath for a few hours each day, and now he has left the bath entirely, and is dressed with water-dressings containing thiol. His skin appears to be in a very satisfactory condition, and he seems to be comfortable. Before going into the clinic he took arsenic by the advice of the specialist before referred to. Since *his* admission he has been treated internally, chiefly by ichthyol and altogether without arsenic.

SCLERODERMIA.

This case is that of a single woman, aged 38, whose health was good up to three years ago. She then suffered from swelling of the face *and* limbs, which after some weeks diminished, so that only the face, hands and arms in the neighbourhood of the wrists showed any abnormality. After a while the skin in the latter situations commenced to stiffen, so that the movements of all these parts were much interfered with, and these portions of the skin became pigmented. She has been chiefly treated with warm baths, and other forms of local stimulation, under which a very decided improvement has taken place. At the present moment the skin of the forehead and nose is of a brownish hue, abnormally smooth, somewhat devoid of expression and shiny, but the mobility is nearly normal. The skin of the arms is still somewhat stiff and pigmented. The forearms are slightly swollen and rather hardened. The sclerodermic condition is most highly developed on the hands and amounts to extreme induration in the case of both forefingers, that of the right hand being somewhat the worse of the two. These latter digits admit of a very limited amount of flexion and extension. The claw-shape of the nails is very pronounced. Upon inquiry into her previous history we found that six years ago she had rheumatic symptoms, with coldness of the extremities, but she did not attach much importance to the symptoms. In the succeeding three years she noticed nothing specially wrong with her health, until the commencement of her present malady. At that particular time she was nursing two children who had measles. She developed a red rash all over her body, and her doctor told her that he supposed she had measles, but that he was surprised that she had not any rise of temperature. It was at this time that the swelling commenced and developed very quickly, leading on uninterruptedly to the sclerodermic condition. As the result of this history the question naturally arises, Was the rash the eruption of measles, and, if so, could measles give rise to the condition, eventually ending in sclerodermia, or were the symptoms those of a "substantive" disease—sclerodermia—altogether independent of measles?

In conclusion, I wish to acknowledge gratefully Dr. Unna's courtesy in allowing me to refer to the above cases, and to thank Dr. Phillipson for his great kindness in assisting me in collecting the notes.

LONDON, *Oct.*, 1891.

CURRENT LITERATURE.

LUPUS VULGARIS. Du Lupus vulgaire, spécialement étudié au point de vue de son étiologie, de sa pathogénie, de son traitement, par le docteur DUBOIS HAVENITH. (Thèse d'Agrégation.) Bruxelles, 1890.

The hopes of a specific treatment of lupus which were raised by the tuberculin "boom" having been, for the present at least, somewhat roughly dispelled, the older methods of treatment and the discussions on their merits and demerits, which threatened to become, within the space of a few months, part of the history of bygone medicine, have been completely resuscitated. Dr. Dubois-Havenith's interesting contribution, therefore, has now the same value which it would have possessed twelve months ago, as a clear and succinct account of the history of the pathology of the disease, and of the various modes of treatment which he has personally tried on a large number of patients.

The history of the battle between the supporters of the tubercular and non-tubercular theories of lupus and the final demonstration of its parasitic nature, both by microscopic examination and inoculation of animals, although already well known, are inserted for the sake of completeness. But on the still disputed point of the abnormal frequency of pulmonary tuberculosis among the lupous, the author has some interesting figures to offer. Among his 115 cases he found 7 cases of pronounced lung disease and 2 cases so suspicious that he feels justified in ranking them in the same category. The danger of working with small numbers in such cases is, however, plainly seen if these observations are compared with those of other writers. Thus Besnier found 8 tuberculous among 38 lupus patients; Renouard 15 in 137; Leloir 10 in 17; and Haslund as many as 60 per cent. Haslund claims that he is able in Copenhagen to follow out the course of the disease in his cases, and attributes his high numbers to this cause; but this surveillance will hardly explain the fact that Nevins-Hyde and Brocq have never in any instance found internal tuberculosis in connection with lupus. It is evident that until some recognized plan of making observations is agreed upon, the statistics cannot be more than suggestive.

[In this part of England the coincidence of lupus and tubercular phthisis in the same patient is certainly extremely rare.—H. G. B.]

Other tubercular manifestations are certainly more common. Thus the author found among his cases 16 examples of caseous adenitis, 5 white swellings, 2 necrosis fistulæ, besides ozæna, suppurating otitis, lymphangitic swelling of the upper lip, &c. A history of family tuberculosis may be frequently found among the lupous, and almost invariably the subject himself is directly scrofulous. Direct heredity is much rarer, Raudnitz having published 5 cases; Pontoppidan 3; Neisser 2; Veiel 1; Doutrelepont 4; and Renouard 3. But it is still less common to find it among brothers and sisters, Renouard having only noted 8 cases in 388, the author only 1 in 118.

In none of his cases has he observed any signs of the direct passage of the poison from the site of the lesions to the lungs or other internal organ as marked by lymphangitis and scrofulo-tubercular gummata, such as have been described by Leloir and Besnier. The tubercular nature of the adenopathies which occur in lupus patients has been demonstrated by the former (in 7 cases) both histologically and microscopically, but in some of the recorded cases no such gangliar enlargement has been observed, and the evidence of the origin of internal lesions from lupus foci can therefore only be considered as presumptive.

Inoculation by continuity of tissue is observed frequently at the mouths of fistulæ occurring in connection with tubercular diseases of the joints or bones, and in those which follow tuberculous gummata or adenites which have opened spontaneously or been cut into by the surgeon. But in a large number of cases it will be found that the disease has originated in some wound (a fall or scrape or scratch), or in some anterior disease (erysipelas, eczema, a blister, an irritated pimple), pointing clearly to the external origin of the poison. Indeed in some cases lupus, like anatomical tubercle, has been known to be directly due to the inoculation of tubercular poison, as in the case of a girl who was tattooed by a man suffering from advanced phthisis, who used his saliva as a vehicle for the colour. Lupus nodules occurring early in a vaccination scar were presumably inoculated through some tubercular virus which was present in the vaccine. Thus, although the contagiousness of the disease has never been upheld, it is evidently not impossible. The author cites an instance in which a girl who slept with her sister, who was affected with lupus of the left cheek, acquired one on the right cheek, which she habitually laid against her sister's face.

The question as to whether some or all of the varieties of lupus erythematosus are tubercular or not is still a matter of uncertainty. Besnier considers that they are distinctly scrofulous, although Leloir's inoculations (1 positive, 6 negative), point rather to the contrary. Dubois-Havenith's statistics show a larger number of cases of general tuberculosis in connection with this affection than with lupus vulgaris, but whereas Brocq regards the lupus erythematosus *fixe* as being tubercular, the author's patients, who presented symptoms of l. erythematosus and tuberculosis at the same time, were all suffering from the centrifugal erythematous form. There is certainly no reason why there should be any narrow limit to the number of forms of dermic tuberculosis, for, as Besnier points out, "syphilitic and carcinomatous lesions present aspects which are in the highest degree dissimilar, according to the period, the form and kind." Lupus vulgaris, tuberculosis cutis, verruca necrogenica, for example, are simple modalities of cutaneous tuberculosis, depending on the violence of the infectious element, on the constitution of the subject, and on multiple general or local conditions the intimate nature of which still escapes us.

Those persons who are of tubercular origin (and who have quite possibly been directly infected by tubercle bacilli in utero) offer the most favourable ground for the extension of the lesions, but in those who were previously exempt and become inoculated locally and infected with general tuberculosis, the primary tubercular accident may be regarded, as Besnier well puts it, in the light of a *tuberculous chancre*. He notes further that lupus patients who become phthisical do so generally in a slow latent manner, which may offer some explanation of the enormous differences in the number of such cases recorded by different observers. But further difficulties in determining the relation of cause and effect between the two infections are found in the well-known fact that in large towns 15 to 20 per cent of the deaths in the population at large are due to tuberculosis, a percentage quite as high as that recorded by most writers as occurring among their lupus patients, and that (although Besnier has never seen a phthisical patient develop lupus) pronounced phthisical persons may become re-inoculated with local tuberculosis (verruca necrogenica). Only such cases, therefore, in which the general affection has been actually seen to follow the development of lupus can be regarded as unequivocal instances of infection. The author evidently does not agree with the strongly asserted statement that a general inoculation frequently follows on the use of operative methods involving bleeding, for in such of his lupus cases as developed pulmonary tuberculosis after the operation it happened that the electric or thermo-cautery alone had been employed. As to the desirability of active treatment generally of the local lesions (which some question), and of its relative importance in different cases, his views are categorically expressed. 1. If the lupus is a purely local tuberculosis, growing on non-infected ground, operate at once and radically. 2. If the subject is of tuberculous origin, but shows as yet no other sign of visceral, gangliar, articular or osseous tuberculosis, operate early and very thoroughly. 3. If the subject shows signs of general infection, the advisability of operation is more doubtful; the tegumentary lesion has become of secondary importance, and the attention of the medical attendant ought to be directed firstly to the deeper lesions.

Treatment of Lupus.—A spontaneous cure of lupus is so exceptional that no thought of expectant treatment can be entertained. A consideration of all the forms of treatment which have been recommended would have been useless, and the author has wisely confined himself to those of which he has actual experience.

Internal treatment is of but little avail, for no medicament given internally is capable of determining the complete absorption of lupous infiltrations, although cod-liver oil, iodide of potassium, arsenic, and iodoform appear to exercise a favourable influence on the neoplasm. The main action of general treatment is to increase the resistance of the organism by improving its tone.

Local treatment is the really essential part in the treatment of lupus. The chapter dealing with this subject is full of practical discussions of the various methods of attack, and shows that the author has tried and appreciated their various difficulties. For the sake of brevity his conclusions may be summed up briefly under their respective headings.

Anæsthesia.—General anæsthesia should be avoided if possible, and employed only in extensive removals. Local anæsthesia (freezing with ether or methyl chloride), may be employed for timid patients; but it so hardens and changes the colour of the patches, and is of such brief duration as to be really inferior to a general narcosis.

Extirpation, especially when followed by Thiersch's epidermic transplantation, has given excellent and rapid results, but is not always successful in avoiding relapses. In some cases of lupus of the face it may be indispensable.

Scraping is an excellent preparatory method, but has to be followed and completed in every case by some other procedure.

Scarification, although a difficult operation to perform properly, is one which is capable of completely curing some cases. It has the great advantage of causing very little scarring, since a large proportion of the papillæ are left untouched (Besnier), and it is therefore a most suitable method of treatment for the face.

Vidal's knife is the best instrument for the purpose, and the cuts cannot be too numerous nor too close together (Vidal). The sittings should be repeated every few days. It is applicable to all forms of the disease, but it is the serious (galloping, phagædenic) forms in which its action is most strikingly advantageous. In all cases, however, it must be methodically and vigorously carried out.

Cauterization.—The actual cautery may be employed to destroy the growth *en masse*, and is much used for this purpose in the Antiquaille at Lyons, especially for patients who come up from the country and can only make a short stay in town. The scars, even on the face, are not so marked as might be supposed, especially if the healing wounds are freely treated with the silver nitrate pencil. Either a hot iron or a paquelin may be used.

For interstitial and fractional cauterization, the electric cautery or the small model paquelin are used. As a source of electricity an accumulator is better than a bichromate battery. It is more constant, is easily transportable, retaining its charge for a long period, and can be easily regulated by a rheostat.* The platinum needles are simple, or multiple after Besnier's pattern. They should be inserted, left a moment in position, and drawn out with a slight movement of circumduction; the points of insertion should be as regularly placed as possible, but not too closely approximated, in order to avoid extensive loss of substance. Not only must the edge of each patch be thus treated, but the apparently healthy skin in the neighbourhood for a distance of half an inch around. After-dressings may often be dispensed with if the eschars remain dry, but if, as is frequently the case, they inflame, ooze and suppurate, they may be dressed either with starch poultices or chalk liniment, or with sublimate compresses or mercurial plaster. The great advantages of this method are the absence of all bleeding and the excellence of the scars produced. Indeed, Dubois-Havenith accords to it the first place among the various purely operative treatments of lupus.

Nitrate of silver, so extensively used in Vienna in the form of hardened points, with which the nodules are bored out, is far less useful than the cautery, the caustic action being so superficial that remnants of the neoplasm are almost invariably left behind and lead to constant recurrences of new growth.

Acid nitrate of mercury is effectual as a caustic, but the pain which it causes is too severe and too lasting to render its employment justifiable when other remedies are at hand.

Chloride of zinc merits the same reproach but in less degree. Mixed with equal parts of alcohol, it furnishes an excellent dressing after scraping, and does not expose the patient to any danger of toxic absorption. For lupus elsewhere than on the face, especially if complicated with epithelioma, Canquoin's paste gives very good results, or the more complicated composition of Dr. Félix:—

℞	Amyli. farinæ	āā 75
	Iodolis, camph-bromidi, croton chloralis	āā 10
	Acidi carbol. cryst.	20
	Zinci chloridi	50
	Aquæ	9·5

Fiat pasta.

The epidermis is removed rapidly by dabbing on a 50 per cent. caustic potash solution; the paste mixed with a little water is then spread over the surface with a spatula. The pain is very severe but the effect is thorough, and under a dressing of sublimate or balsam of Peru the healing process is very rapid.

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* The author recommends the accumulator made by the "Electrique" Society of Brussels.

Pyrogallic acid has the advantage of acting, like arsenic (and salicylic acid, B.) as a selective caustic. It may be employed in a 10 per cent. ointment (Schwimmer), a gutta-percha plaster (Unna), or in etherial solution as a spray, the powdery deposit being immediately covered with a coating of liq. gutta-percha. Suppuration is soon set up and the dressing must then be changed for a mercurial plaster (Vigo or Unna), under which, in the majority of cases, the wound heals up in from ten to fourteen days. The great drawback to this otherwise valuable method is its extreme, sometimes unbearable, painfulness.

Corrosive sublimate, although an effective parasiticide for the tubercle bacillus, is but an incomplete remedy for the lupus neoplasm. It has been employed, as in the form of ointment (1 per cent.); gutta-percha plaster (1 per cent.); lotion (1 per cent.), and injection. Although it certainly can modify considerably the appearance of the lesions, its action is so slow and precarious (and painful, B.) as to render its use unadvisable. As a dressing after scraping and cauterizing operations, however, it is distinctly valuable, acting as an antiseptic, and helping to complete the work of removal of the lupomatous tissue.

The choice of these methods in an individual case must depend largely on the site of the disease, the age of the patient, his social condition, his bravery or timidity, his general state of health, and the distance of his home from his medical attendant.

It is impossible to reproduce here the author's detailed considerations of the reasons which his experience and that of others has led him to employ under these various circumstances. His conclusions, however, may be briefly summarized.

In lupus of the limbs and trunk.—(1.) The most rapid treatment must be preferred, without regard to the appearance of the scar. (2.) Extirpation, either alone or combined with Thiersch's epidermic transplantation, constitutes the treatment *par excellence*. (3.) When this method is inapplicable nothing replaces thorough scraping, followed by cauterization by paquelin or nitrate of silver. (4.) When the process of epidermization appears to go on irregularly after cauterization, chloride of zinc may be of great service. (5.) Most of these procedures require general anæsthesia in order to perform them thoroughly. (6.) Compresses soaked in corrosive sublimate solution, and covered with gutta-percha, form an excellent subsequent dressing.

In lupus of the face.—(1.) The patch should be excised, if favourably situated, the most vigorous antiseptic precautions being taken. (2.) If rapidity and thoroughness of treatment is more important than an irreproachable scar, scraping and cauterization, not only of the patch itself, but of the surrounding tissue, is preferable. (3.) When the last stage is approached the remnant must be removed with galvano-puncture. (4.) If the lesion is situated in the neighbourhood of the nose, lips, eyelids, or ears, preference should be given to the mixed method of linear scarifications and electro-cautery (Brocq), by which much better and quicker results are obtained than by either method alone. (5.) If time is of no object compared with the final appearance of the scar, scarification should be resorted to; and in case it alone is not successful, the galvano-cautery.

In lupus of the nose, where the disease is so apt to recur again and again, and cause such deplorable mutilation, the line of treatment depends on the stage of the disease. In the early periods Brocq's mixed method should be used carefully and persistently, in the hope of preserving the outer form of the organ; but if they prove it to be insufficient, free scraping and cauterization must be resorted to, followed, if necessary, by a rhinoplastic operation. As the author well observes, "A scar is better than a complete cure, which we are always promising, and which never comes."

In lupus of the mucous membrane of the nose, the application of zinc chloride is, in the author's opinion, far superior to any other treatment, even that by galvano-cautery.

In lupus of the other mucous surfaces, however, the cautery is unapproachable.

In lupus of the lips, ears, and eyelids, electro-puncture should first be tried; and should it be found that some scattered nodes are left which can be easily enucleated, the curette should be resorted to. In extensive cases the one object of the attendant must be to obtain cicatrization "at any price."

Lupus complicated by epithelioma is not rare; the author observed five cases among his 118 patients. It is most frequent in cases of old standing, but in one case (Schütz) succeeded to a lupous ulceration of a few months' duration. In order satisfactorily to diagnose its occurrence, not only must the clinical evolution be studied, but sections must be examined which have been *cut well into the derma*, so that the passage of the prolonged epithelial cones of lupus into actual epitheliomatous degeneration may be satisfactorily demonstrated. As soon as the diagnosis has been made, the whole growth must be destroyed or excised. The author strongly recommends the zinc chloride paste for this purpose.

Of all these methods none is infallible, and any one may fail in cases to which it seems the most adapted. In spite of all, the disease is at times apparently almost incurable. Certain serious forms of it seem simply to be exasperated by any active local treatment; in others the affected tissues become, for a time at least, accustomed to one or other form of treatment, and require a rest before it is recommended. The evil effects of wintry weather cause acute outbreaks, which, in like manner, compel the suspension of all active treatment. Such difficulties render any routine treatment of lupus impossible. It is always a matter of time, patience, and great discretion; but above all things Brocq's advice should not be lost sight of, that "lupus should never be left to itself for a single instant until a complete cure has been obtained."

This pamphlet, which furnishes a most interesting, critical *résumé* of the present position of the pathology and treatment of this most obstinate disease, contains some good phototypes of lupus and syphilis of the face, showing the effects of treatment, and with an analytical table of a large number of cases.

H. G. B.

PATHOLOGY OF THE SO-CALLED "SEBACEOUS CYSTS."

The usual theory that the familiar "wen" is due to the blocking of the duct of a sebaceous gland and a consequent retention of sebum has been opposed by Sir James Paget, who, so long ago as 1853, gave it as his opinion they were not retention cysts but a simple form of dermoid of the skin. Franke (Langenbeck's Archiv., Bd. 34) came to the conclusion that although these growths, which are otherwise known as atheromata, have a close relationship with dermoids, that they are, notwithstanding, distinctly different structures; that dermoids only occur in places of predilection, in which the fœtal development will allow of the inversion of the whole epidermis with its concomitant structures, whereas the subcutaneous atheromata originated from a simple embryonal epithelial prolongation which had proliferated deeply and finally separated off.

Török (*Monatshefte für praktische Dermatologie*, Nos. 10, 11, Bd. xii., 1891) has undertaken a thorough investigation of no less than twenty-six cysts (twenty-one atheroma cysts, five typical dermoid cysts) from various parts of the body, to ascertain the nature of the differences in the two forms of tumour. When dealing with fresh specimens he avoided the mistake made by Franke of placing them in spirit, which nullifies any after-investigation of the contents as regards the presence or absence of fat. In order to investigate the inner wall, and determine the presence or absence of papillæ, papillary ridges, or sebaceous glands, fresh specimens were placed for 1–2 days in water weakly acidified with acetic acid (Philippson's process), which allows the whole lining to be easily stripped off, and, after staining with hæmatoxylin, examined in large areas under the microscope. By adopting this method any sign of papillæ or other indications of epithelial structures were readily seen, and with much greater certainty than would be possible by the examination of hundreds of sections. In the results of this examination Török agreed with Franke that most atheromata contain papillæ, and that by this fact alone the retention theory is completely disproved. In only two of his cases did he fail to find them, and their presence in great regularity and extent, even when hair or sebaceous follicles were also present, showed that if the cysts were due to retention it must have been retention in the duct (which is a highly improbable condition) and *not* in the gland itself, which is incapable of producing papillary ridges. Again, most atheromata are situated in the subcutis, quite apart from all gland structures, and small secondary cysts are occasionally found opening into the larger ones, and which obviously could not be derived from any hair or sebaceous follicles.

The contents of the cysts comprised horn cells, cholesterin crystals and the detritus of both, sometimes chalky masses and often blood. The presence of fat was quite exceptional. The contents were therefore not in the least identical with those of sebaceous glands. Such products of sebaceous glands as are definitely known to be due to retention (the contents of comedones) certainly do consist mostly of horny masses, but have no resemblance to the pultaceous contents of the atheromata.

In Török's opinion these growths are nothing else than simply built dermoid cysts. Dermoids have hitherto been supposed to be sharply separated from atheromata in that they were either situated in regions where no hair or sebaceous follicles occurred, or that they possessed a more complicated structure (glands, follicles, papillæ, verrucæ, horns), that they had no duct, were only loosely connected with the superjacent skin, have a thinner wall, and a very vascular connective tissue covering. An examination of the details of the specimens examined shows that none of the supposed differences are infallible. Atheromata, consisting simply of a connective tissue covering and a simple epithelial lining are exceptional. The majority, whether they are superficial or deep, present a well-developed system of papillæ or ridges which may be lost if the cyst is tightly stretched, but are sometimes large enough to be plainly discerned by the naked eye.

Just as the atheromata may be more complicated than is generally supposed, cystic tumours, which from their situation would certainly be held to be dermoids, are sometimes of perfectly simple construction, containing neither hair, glands, nor papillæ. On the other hand undoubted atheromata are found (8 in Török's 14 fresh cases) containing a few hairs and sebaceous follicles. It is evident, therefore, that a continuous transition series exists between the simple cysts without papillæ and those which are richly supplied with both papillæ and ridges.

As regards the presence of ducts or their remnants, Franke states that no observer has been able to prove their existence in connection with atheromata. Török found, however, a typical dermoid which was provided with a short duct blocked up with a horny plug. The presence or absence of a duct is therefore no distinguishing feature between the two. It is certain also (Porta) that a large part of the atheromata are congenital, and that certain families are predisposed to them. *Atheromata are in fact nothing else than dermoid cysts.* If the original involution of the integument contains epithelium and corium papillæ are produced, if epithelium alone no papillary body is present. Milium furnishes also an example of this latter development (Robinson, Philippson). If the inclusion takes place in early fœtal life a dermoid results, if at a later period a simple cyst, an atheroma. Both may be late in developing, and may only start to grow vigorously at puberty. It may possibly be that those epithelial germs which are separated off later in the growth of the embryo possess less vigour of growth than those which have been detached at an earlier date.

The paper is replete with details of all the specimens examined, and is illustrated by a carefully executed plate of drawings of microscopic sections.

H. G. B.

CASE OF GENERALIZED MOLLUSCUM FIBROSUM. DR. LUDWIG L. IURKEWICZ. (*Meditzinskoië Obozrenïë*, No. 21, 1891, p. 738, with a Drawing.)

Dr. Iurkewicz (pron. Yoorkevitch, a Polish name), of Vladikavkaz, Caucasian Russia, records a case of generalized Molluscum Fibrosum, occurring in a mountaineer (a Tersky Cossack), aged 50, the offspring of perfectly healthy parents, and himself father of quite healthy children. On examination of the patient—a mentally weak, undersized, anæmic-looking man, with pigmented flabby integuments—his whole body was found to be studded with new growths of different sizes. The largest of them occupied the patient's back, hanging down (in a knapsack-like fashion) from a broad pedicle (18 centim. wide) from the level of the spine of the scapula to the buttocks. The tumour (including the pedicle) measured 56 centim. in length, and 60 in its largest circumference. It had a uniformly dense and elastic consistence, and was covered with purple, thinned, pliable skin, ulcerated in places, and traversed by innumerable vertical slit-like furrows (*lineæ albicantes*). There were further present:—(*a*), a soft movable tumour, the size of a goose's egg, situated just above the external end of the left clavicle; (*b*), a similar tumour, the size of half an orange, on the anterior surface of the left thigh; (*c*), sixty-five tumours, varying in size from a big pea to a hen's egg; and (*d*), countless wart-like growths, varying in size from a hemp-seed to an average pea. The tumours were seated most closely together on the scalp, face, neck, and anterior surface of the chest; on the back, abdomen and upper extremities they were somewhat less numerous, while on the buttocks and lower limbs there were not more than ten growths or so. All of them were globular, pedunculated, softish or elastic, and movable. According to the man's statement, the largest tumour had been steadily growing since his infancy, while all others had been first noticed by him about five years before his coming under the author's observation. Since the huge mass greatly interfered with his work and caused pain (produced by erosions), it was removed, the operation being accompanied by very profuse bleeding, which was due to the extreme vascularity of the pedicle. The patient made a good recovery. The excised tumour weighed 5·016 grammes, and is therefore one of the largest on record. The microscope revealed typical structure of fibroma molluscum. The author points to the rarity of the affection, which is said to occur only once in every 1,874 cases of cutaneous disease, as has been shown by statistics published by the American Dermatological Association.

[This is only partially true, even with regard to Europe. In Eastern countries, especially in Japan, molluscum fibrosum occurs very frequently. See, *e.g.*, Dr. Tsunatsune Hashimoto's paper in the *Sei-I-Kwai Medical Journal*, December, 1888, p. 197. The latter author also describes a case of the affection with 4,503 tumours, of which the largest measured 93 centim. in the circumference and 24 in diameter; while another had 39 and 26 respectively; and a third, 48 and 16.—*Reporter.*]

VALERIUS IDELSON (Berne).

AN EPIDEMIC OF PEMPHIGUS NEONATORUM. DR. VASILY P. JÜKOVSKY.

(*Vratch*, No. 15, 1891, p. 387.)

Dr. Jükovsky, of St. Petersburg, describes an interesting epidemic of pemphigus neonatorum which broke out in a certain district of the town during last summer, attacking solely infants of the poorer classes of the population. Twelve infants fell ill, all of which had been delivered by the same midwife, a person of slovenly habits. Of the number, two children—apparently the first victims of the epidemic—had succumbed before the author was informed of their illness. The remaining ten cases, two of which also ended fatally, were characterized by the following clinical features. The disease commenced on the fourth, fifth, or sixth day after the infant's birth, the blebs almost invariably appearing first somewhere on the upper half of the body (on the scalp, forehead, eyelids, neck, or chest), and subsequently coming out in crops in other regions. In the milder cases the total number of blebs was limited to twenty or thirty, while in the fatal ones the affection ultimately spread all over the body (except the soles, which were *never* affected), the blebs being seated very closely together. In one of the non-fatal cases the conjunctiva was also involved. In the lethal cases there were present an intense congestion of the oral mucous membrane, and tumefaction of the gums. The size of the blebs varied from a pin's head to that of the palm. The temperature in the rectum oscillated between 37·5° and 38° C. The bowels were usually rather costive, except in one of the fatal cases, where there supervened hæmatemesis and blood-stained diarrhœic stools. The duration of the disease varied from one to three weeks. In two cases there was observed a consecutive development of acute pemphigus in the infants' older brothers and sisters, as well as in their mothers. It is interesting to note that cases of pemphigus neonatorum ceased to occur as soon as the said midwife, following the author's advice, had discontinued to practise her trade.

VALERIUS IDELSON (Berne).

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ADDRESS INTRODUCTORY TO A DISCUSSION ON LUPUS,

In the Section of Medicine at the Annual Meeting of the British Medical Association, held in Bournemouth, July, 1891.

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[Abstract.]

In the few remarks which I propose to offer I shall not attempt a general exposition of the subject, but desire only to draw attention to certain points which admit of controversy.

The first question we cannot help asking is: What are the nature and origin of lupus? In the present day we are not content with knowing only the external characters, symptoms, and course of a disease. We always ask, What is its cause? Now, the causes of diseases are, it seems to me, reducible to three classes—inheritance, habit, and injury; and the third cause is that which most requires consideration in the case of lupus. Is this disease, we ask, due to any injury, either to ordinary traumatism or to some specific pathogenic agent, such as a micro-organism? Now, it is impossible to attribute much to ordinary traumatism, that is, to a blow, cut, or similar injury.

Looking through the notes of a large number of cases of lupus, I find one in which the first occurrence of the disease was attributed to such a cause. It was that of a boy, aged 16, whose case has several points of interest. When he came under observation he had six patches of lupus, namely, on the nose, the left cheek, the left ear, under the right lower jaw, on the right elbow, and the right thumb. The disease was said to have begun on the nose nearly two years before, and subsequent to a blow from a cricket ball. The other patches had appeared consecutively, that on the elbow last, which was nearly a year after the original injury. On inquiry, it appeared that the lupus had not immediately followed the blow, and there might be some doubt as to whether it was really even the occasioning cause. But even if it were so, the mere fact of the disease following an ordinary blow would in itself show either that there was something abnormal in the tissues of the patient or that some specific infection was introduced into the wound. The extreme rarity of this event is itself evidence that something more than simple injury is required. We might suppose it to be the result of injury acting on persons with a particular constitutional tendency, if injuries of other parts were followed by similar consequences. But one cannot candidly say that this is the case. A trauma, even combined with constitutional weakness, is not sufficient to explain it. We are driven, then, to the conclusion *that the* cause of lupus must be some specific irritant or virus, and the examination of its structure points to the same conclusion.

Structure of Lupus.—The structure or histology of lupus is so well known that we need not enlarge upon it. It belongs to the class first defined by Virchow as granulation tumours.

Now even apart from the facts of infection and inoculation, the history—clinical and pathological—of the granulation tumours would show that there must be a persistent and therefore living irritant which keeps them up. In the granulation diseases there is a sort of living "thorn in the flesh"—an irritant the vitality of which *is* measured by months and years, continually acting at one or more spots, so as to go on producing the same effects it produced at first.

Now, in most of those granulation diseases, in fact in all of them except lupus (if this be an exception), the persistent living cause has been either demonstrated or established by unmistakable evidences; and I wish to emphasize this conclusion, that if lupus be not due to a persistent living organism seated in the tissues, it is a marked *exception* in the class of morbid products to which it belongs by its structure and by its clinical history.

It is hardly necessary to say that a bacillus has been found, very sparingly, and often searched for in vain, but still in a considerable number of cases, which is precisely identical in form, size, and relation to staining reagents, with the bacillus of tubercle. It has been cultivated and found to grow in the same manner.

Furthermore, what is still more important, lupus tissues and the cultivated bacillus have been many times inoculated into animals and produced the same artificial tuberculous disease which is produced by other tuberculous tissues and by the cultivated bacillus ; I refer especially to the experiments of Koch and Leloir among others. Now at the present time inoculation is justly regarded as an equally certain and more delicate test for the presence of the tuberculous virus than the discovery of the bacillus itself. There is also one other result which ought to be mentioned, namely, that Mr. Eve, by inoculation of lupus tissue in a rabbit's ear, produced what was apparently a true lupus disease, not like inoculation tubercle.* These highly interesting and important experiments deserve to be repeated, but one would like to know whether this secondary lupus thus produced was capable of conveying the tuberculous infection by inoculation to other animals. I confess the evidence which I have just glanced at, but which time does not permit to state in detail, impresses me very strongly with the conviction that lupus is a tuberculous disease, and caused by the same bacillus, though there are certain modifications which are perhaps all at present sufficiently explained. This explanation is accepted by the majority of pathologists and dermatologists in Europe, but since several authorities of great weight are on the other side, either opposing this view or thinking it insufficiently established, their objections deserve consideration. I will then briefly run over the points in dispute, expressing the hope that those who are to follow me, and whose experience is larger than my own, will state both sides of the argument without reserve, so that the subject may be thoroughly discussed. The main points at issue may, I think, be brought under the following heads :—

1. Appearance and histology of lupus, and absence or presence of the bacillus.

2. Clinical history of lupus, including its mode of extension, its relation to climate, temperature, and to age and sex, general health and hereditary relations.

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* *British Medical Journal*, 1888, i. 644.

3. Its relation to tuberculous or scrofulous diseases in the same subject.

4. Effects of treatment.

1. *Appearance and Structure of Lupus.*—The histological structure of lupus differs from other forms of tuberculous disease only in this: that it is rather tuberculous tissue than an agglomeration of separate tubercles. Also we very rarely meet with any considerable masses of caseous substance, such material being probably thrown off more easily by suppuration than in tuberculosis of internal organs. Bacilli are certainly very rare; I cannot show you a specimen, but we shall be very glad to hear the experience of others on this point. Fibrous growth is also very common, forming the large keloid masses which are so characteristic in some cases. These are often regarded as scars, and are certainly, I think, very frequently formed after scraping operations. In some cases, however, these keloid masses are formed spontaneously without any operation. They are a dangerous complication because very difficult to eradicate, and yet containing the specific virus, since we often see fresh nodules of typical lupus arise in their midst.

On the whole the combination of necrosis with fibrous new formation seems to me highly characteristic of lupus, and approximating it most closely to other tuberculous lesions. I do not think this combination occurs in any other lesion of the skin except in syphilis. There is also often an excessive formation of epidermis in the form of scales, but this is of course a feature common to most chronic inflammations of the skin.

Diagnosis of Lupus.—It is an important question whether these appearances are so characteristic that lupus can always be diagnosed. Mr. Hutchinson, whose immense experience and high competence in this matter all must admit, thinks that they are not characteristic or well defined. He thinks that transitional forms may be found connecting lupus with eczema, with an eruption like psoriasis, with lupus erythematosus, with scrofuloderma, and even with chilblains, while the appearance alone is not sufficient always to distinguish it from syphiloderma; the only characteristic feature being the spreading and destructive character of the inflammation. With great respect I must confess I cannot share these views. It seems to me that eczema and psoriasis may in some cases simulate lupus, or *vice versâ*, but if we remove a small fragment of lupus by scraping, section, or otherwise, the distinction is easy, and when this is not possible the course of the disease and the distinctive character of lupus prevent confusion. With regard to syphilis, any one may hesitate to make a diagnosis in certain cases, but the course of lupus is so much more chronic than syphilis that their relative rates of progress may be compared to those of the hour hand and the minute hand of a clock. Nor is the semblance to chilblains more than superficial. The only features they have in common are those of capillary stasis leading to local cyanosis and occasionally ulceration, which, however, is so much more transitory in chilblains that it hardly gives rise to confusion. With regard to lupus erythematosus the case is somewhat different, but it depends chiefly on our definition of the latter disease. It has been too much the custom to apply this name to cases of common lupus in which there is much hyperæmia, and which happen to be nearly symmetrical. But if the term be confined to those forms more strictly definable, which rise on an erythematous basis and lead to a merely superficial scarring without deep necrosis, I think the difficulty disappears. The relation of lupus to scrofuloderma and inoculated tuberculosis of the skin I leave for the present.

2. *Clinical History of Lupus.*—The general history of lupus may be, I think, presented in the following form. It mostly begins in adolescence or early adult life, rarely in infancy, but I have seen a patient in whom it was said to have begun at seven months old, and, as is often the case in infantile skin diseases, attributed to vaccination. The vaccine scar, however, showed no trace of lupus. The oldest case I have seen commenced at the age of fifty-nine, in a single lady.

CASE I.—Miss A., 63, came under my care in 1883—an unmarried lady in perfect health, vigorous and strong, having never suffered from any illness. No family history of tubercular or other diathetic disease. A patch of lupus about an inch-and-a-half in diameter, almost in the centre of the forehead, the middle part of which was partly cicatrized; the rest thickly covered with epidermic scales. There was no pain or irritation.

History.—The lupus had appeared about four years before in the form of a bright red patch, the size of a threepenny piece. After some months it was seen by my friend, the late Dr. Sparks, of Charing Cross Hospital, who destroyed the patch with caustics but without effecting a permanent cure. The patient had subsequently been under the care of Sir Erasmus Wilson for two years, and under other doctors, but without lasting benefit. I afterwards had the advantage of a consultation with Sir James Paget, who confirmed the diagnosis of lupus vulgaris, and thought that destruction by caustics would be the most suitable treatment.

Cauterization with acid nitrate of mercury, and afterwards with potassium hydrate, was accordingly tried, but with only partial success; partly because the patient lived at a great distance from London, and was only seen at irregular intervals. In the autumn of 1883 the patient was kept under treatment for about a month; and linear scarification was employed, followed by rubbing in iodoform. This treatment was much more successful, and when seen again in January 1884, after an interval of two months, the patch appeared perfectly cicatrized, except a small area, which was treated in the same way. In May, 1884, the cure was nearly complete; and when seen again in August, 1884, the whole appeared to be cicatrized; and as the patient did not appear again, I presume the cure was complete.

The result shows that lupus in this advanced age is quite as amenable to local treatment as in the young; and had the patient been under continuous observation, I have no doubt the cure would have been much more rapid.

It always begins at one spot, and rarely forms multiple foci. I had one patient with thirteen lupus patches, another with eight. In a patient whose case I shall presently relate they are much more numerous, but in this case true lupus was complicated with scrofulous ulcers, so that the process was different. The multiplication of lupus patches generally takes place in the early stage, but in one patient now under my care a fresh patch was produced a year after the commencement, and in another after several years. But when lupus is once established and becomes inveterate, it seems to have generally lost the power of producing new discontinuous patches. We may suppose that new lesions are produced by the transference of infective material derived from the original, or that the secondary infection takes place through the blood. For my own part I incline to the former view.

With regard to external causes, there is no doubt that lupus is generally worse in cold weather, and improves in summer, so that the congestion or stagnation in the circulation of the skin due to cold is a factor favouring its growth. This important fact has been dwelt upon by Mr. Hutchinson. From this fact we might suppose that the disease would be commoner in cold countries; and though the geography of lupus is very imperfectly recorded, I suppose this is partly true. But it cannot be a general law, since the disease is admitted to be rare in

North America and in Northern Europe. Among its great centres are Austria and the Rhine country. In Paris, as in London, it is abundant. On the whole, the only generalization which these facts appear to suggest is that lupus abounds where other tuberculous diseases, especially pulmonary phthisis, abound.

Lupus has certainly little influence on the general health; most of the subjects have no other disease, and may be called healthy. Still, lupus patients are not long-lived.

3. *Relation of Lupus to Tuberculous or Scrofulous Diseases in the same Subject.*—No point in the history of lupus has been more debated than this. The opinions, and it would seem the experience, of different observers show the most extraordinary differences. Some assert that the subjects of lupus are frequently affected with pulmonary phthisis or other tuberculous affections; others assert that this combination is so rare that it may be regarded as a mere coincidence. It is dangerous to trust to mere impressions, and hence I have gone over a number of my cases in order to try to determine the frequency of this combination. The results are not sufficiently complete to present in a tabular form; but the general effect of them is to show that, while the majority of lupus patients are certainly healthy, and suffer from no other disease, a certain proportion—probably about one-fourth—have some other manifestation of tubercle, such as joint disease, phthisis, or scrofulous glands. I must confess, for my own part, I attach very little importance to these statistics. Even if the proportion of other tuberculous affections were much less, it would not destroy the tuberculous character of lupus. For it is admittedly quite possible to have tubercle affecting one organ of the body only.

If we take into account the family history of tuberculous disease, we get a decidedly larger proportion; in fact, I have come to the conviction that tubercle is found in the parents or relatives of lupus patients more frequently than in the patients themselves. In saying this, I am well aware of the great difficulties we encounter in obtaining correct family histories from hospital patients. I have therefore chosen those which seemed most trustworthy, either positive or negative. This generalization, if established, would lead to the suggestion that lupus is often a manifestation of hereditary tuberculosis.

In connection with this point it is interesting to inquire whether lupus itself is ever hereditary. It is generally stated never to occur in two successive generations. I have, however, under my care at present a mother and daughter with this disease. The mother, aged between 40 and 50, has had typical lupus of the face for many years. The daughter, aged 25, has had a patch of tuberculous and papillomatous disease of the foot of the kind called lupus verrucosus, and has also had some disease of the joints, which is now cured, but was almost certainly scrofulous or tuberculous.

With regard to the relations of lupus to special tuberculous diseases, I begin with pulmonary phthisis. I have found a few patients with phthisis, but I have not actually come across cases such as have been often described of lupus patients subsequently suffering from phthisis and dying of it. This is probably due to the difficulty of tracing the subsequent history of our patients. I have no doubt that such cases do occur. Nor can I say that I have ever seen pulmonary or general tuberculosis follow scraping or similar operations, though now-a-days nearly every lupus patient we see has been scraped at one time or another.

The relation of lupus to gland affections of the kind called scrofulous, now generally admitted to be tuberculous, is a more intricate subject, on which the most absolute contradiction of opinion and experience may be found. M. Leloir, of Lille, says that "adenopathies" are frequent in lupus, and occupy the lymphatic structures leading from the lupus. He gives some observations in which the tuberculous nature of these gland lesions was established by inoculation of fragments of their tissue into animals, and thinks that a lymphatic gland enlargement in connection with lupus should always be excised and destroyed.*

Mr. Hutchinson, on the other hand, says that lupus never gives rise to infective gland disease. Now "never" is a dangerous word in pathology. It is, perhaps, always better to read for it "hardly ever." As a matter of fact, the glands are sometimes, though rarely, affected. I have under my care at present a little boy with three enlarged glands on the left side of the face, clearly secondary to lupus. But much more important than this is the not infrequent case where tuberculous disease of the glands precedes the formation of lupus. This—if we consider scrofulous gland diseases as tuberculous—is a very strong argument for the tuberculous nature of lupus. It is surprising this sequence has not been oftener observed. Dr. Radcliffe Crocker's is the only text-book I know in which it is stated that lupus may be derived from glands.

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* *Etudes sur la Tuberculose*, Verneuil, 1890, p. 551; *Annales de Dermatologie*, 1891, ii, 1, 79.

Secondary Lupus.—When once inquired for it will be found to be not an uncommon occurrence. It is a frequent, if not the usual origin of that form of lupus which occurs under the lower jaw. I have seen several cases in that situation of which the history clearly showed that the disease began in an enlarged gland, and afterwards extended to the skin. I could now give the histories of some half-dozen similar cases. This form I have accordingly called *secondary lupus.* Its occurrence speaks strongly for the tuberculous nature of lupus. In other cases it is difficult to determine from the history whether the glandular affection was primitive or consecutive to the lupus. In lupus of the face, glandular complication is, I think, rarer than when it occurs on the neck or lower law; and probably this is partly due to peculiarities of lymphatic supply.

Scrofuloderma.—The relation of lupus to what is called scrofuloderma constitutes a very intricate question. We should first define the latter word—a difficult task. By it I have generally understood an affection, mostly ulcerative, affecting the subcutaneous tissue chiefly, in which the skin suffers necrosis, but is not the seat of spreading inflammation. These ulcers often have their starting point in scrofulous glands, but also arise independently by the breaking down of nodes under the skin. It is in these days a somewhat rare affection, but must have been at one time much commoner, since it formed the great bulk of the cases of disease known as the King's evil, and "cured" by the royal touch. Even at the beginning of the century it was commoner than now. Such ulcers are known to be intractable, but many of them heal spontaneously; and they are remarkably influenced by diet and tonic treatment. Hence the prognosis is far more favourable than in lupus.

I believe such ulcers may become lupus patches, that is, in some cases the infection derived from subcutaneous structures spreads superficially along the skin. When it does so the disease is what is called lupus. When it remains a sharply defined ulcer or abscess, with only a little thickening and inflammation of its walls, the disease is called scrofuloderma. Formerly I was inclined to separate from lupus all cases starting from glands, but found that in doing so I was cutting off undoubted cases of lupus.

CASE II.—The following case is a remarkable instance of the combination of scrofulous sores with lupus:—

Nellie B., aged 20, admitted into St. Thomas's Hospital May 20th, 1890. Patient shows extreme lupus of face and neck; with a number of subcutaneous chronic scrofulous abscesses on trunk, and one or two on limbs. The lupus involves the nose, both cheeks, under aspect of chin, and front of the neck on both sides up to the ears. It also extends posteriorly behind the ears to the nape of the neck, and slightly above the ears on the hairy scalp. These patches are partly composed of the usual translucent tubercles, but more largely of raised red masses covered with scales; and a considerable portion shows cicatrization, especially on the sides of the neck. On the chest and back are numerous small abscesses and ulcers, some discharging pus, some crusted over. There are also, perhaps, an equal number of scars of similar lesions, some being depressed, some hard and fibrous, most pigmented. In the left groin is one very large and depressed scar. Above the left elbow is a subcutaneous node, about the size of a cherry, in the position of a lymph-gland, discharging pus from a rather deep sinus. There are no enlarged glands to be felt in the neck; but in the axillæ are small abscesses, apparently glandular. Most of the abscesses have no relation to lymph-glands. About the shoulders some distinctly lupoid patches are mingled with the abscesses and ulcers. The pus was examined for tubercle bacilli, but none were found.

The patient is generally well nourished, and has no sign of visceral disease. No history of tubercular disease in the family can be traced.

The history given is that the patient when very young (she cannot remember how old) had a large lump in the left groin, which discharged matter and left the scar now seen. After that she frequently had lumps under the skin, which used to discharge and were very long in healing. Some years after the first beginning of the disease, when patient was ten years old, the lupus of the face commenced on the right cheek, and has now lasted ten years.

While she was in Hospital the lupus of the face was very thoroughly scraped by the Resident Assistant Surgeon, Mr. Robinson; and afterwards treated with salicylic acid, iodoform, and other applications. Most of the scrofulous sores or "scrofuloderma" healed up without operative treatment. Iodoform was the most useful application.

Patient was discharged in October, much improved in appearance, and readmitted July 28th, 1891. The greater part of the lupus is now cicatrized, a few red scaly patches remaining. The chest and back are covered with the raised scars of former sores, of which only one or two remain unhealed. There are small red scaly patches of lupus on the back. The large node above left elbow continues to discharge.

The further progress need not be described, but it is evident the case presents a distinct history of (1), "scrofulous glands" in early childhood; (2), spread of scrofulous nodes over the body; (3), well-marked lupus of the face and neighbouring parts.

There can be little doubt that lupus patients are occasionally found to be affected with tuberculous joint disease, but in what proportion I am unable to say.

Other Tuberculous Diseases of the Skin.—It has been said that there are true tuberculous affections of the skin which are different from lupus, and this, if established, would be a powerful argument against the tuberculous nature of the latter. Now, there are at least two forms of such disease described: traumatic tuberculosis, of which the *post-mortem* wart is alleged to be one type; and that which extends to the skin from ulceration of contiguous mucous membranes. I know little of these diseases from personal experience, and should like to hear the views of those whose experience is larger. But it seems admitted that the external characters of these forms of cutaneous tubercle are different, being more warty or papillomatous. In one case—that of a patch on the arm of an anatomical assistant, under the care of my friend Mr. Anderson—the minute structure seemed to me not to differ from lupus. It has also been said that the progress of these lesions is more rapid than that of lupus. But, on the other hand, the *post-mortem* wart and similar productions may remain for months or even years with little change—*experto crede!* A very few cases are recorded in which glandular and general infection has supervened on such lesions. Considering also the papillomatous form of lupus (lupus verrucosus) which makes a transition, I see no reason for drawing a sharp distinction between lupus and inoculated traumatic tuberculosis.

4. *Effects of Treatment.*—To discuss the general question of the treatment of lupus would require much more time than is allotted to our whole subject, and would, moreover, inevitably tend to trench on the domain of surgery, so that I only propose to consider such aspects of this important subject as may throw light on the nature of the disease. If we were to mention the methods of treatment efficacious in lupus we should find ourselves enumerating exactly the measures known to be efficacious in tuberculous diseases;—namely, operative and parasiticide treatment for the external accessible forms of the disease, and general hygienic nutritive and climatic treatment for those forms inaccessible to operation, such as pulmonary phthisis. In cancer, on the other hand, with which lupus is sometimes compared, treatment of the kind last named is notoriously quite useless. I scarcely dare to refer to Koch's treatment, knowing what a flood of

discussion the mention of this name may let loose. But no one can deny that the action of tuberculin on lupus is very distinct, and similar to its action on tubercle, even though it be true that other morbid products—for instance, those of leprosy—are also affected by it.

Conclusion.—The general effect of the evidence for the tuberculous character of lupus seems to me to lead to the following conclusions. Lupus may be regarded as a very slow and chronic form of the tuberculous process, remaining for the most part local. It differs from other forms of tuberculous disease chiefly in its slowness, its feeble infectivity, and the paucity of tubercle bacilli it contains. Probably for these reasons it remains commonly confined to the organ (skin) in which it originates, and often to one part of it. It is a plausible hypothesis that these differences depend on the production of a weakened virus, or on the bacillus growing in unfavourable circumstances, as compared with the conditions present in internal parts. Now the most striking difference between the skin and the internal viscera is that of temperature. The temperature of most internal organs is probably about 100° F., while a surface thermometer applied to the skin is with difficulty brought up to near 90°, and in exposed parts, with free radiation, the temperature of the skin is probably on an average not much over 80°. This difference will be greater if the cutaneous circulation is sluggish, and also when there is much subcutaneous fat, one function of which tissue appears to be to allow the skin to have a temperature different from that of internal organs. Furthermore, internal tuberculous lesions always give rise to some fever, which is not the case with tuberculosis of the skin, and this further heightens the contrast, so that the temperature of an external tuberculous lesion might very well be 20° lower than that of a visceral lesion. The temperature and conditions of tuberculous disease of joints would, I imagine, be about intermediate between the two. It is known that the "optimum" temperature for the growth of the tubercle bacillus is about 100°, and though it has been lately shown that it will grow at lower temperatures than has been supposed, the growth, under such circumstances, appears to be slow. It has not been ascertained, so far as I know, whether cultures grown at a low temperature are actually less virulent, nor whether the ptomaines or other chemical substances they produce are different;

but while the bacillus grows so slowly, it seems certainly probable that there would be a difference in these respects also. I conclude then that the skin is a poor soil for the growth of the tubercle bacillus, and that though it may persist there, its condition is not flourishing.

The Skin not a favourable Soil for the Tubercle Bacillus.—Looking at the question all round, it would seem, too, as if the bacillus were not easily made to take root in the skin. Inoculated tubercle, as I have said, seems very often to die out without penetrating further. The bacillary growth of scrofulous glands or subcutaneous nodes when it reaches the surface mostly dies off, only exceptionally extending along the skin and producing lupus. Lupus on the surface of the extremities, as Mr. Hutchinson remarks, and as I can confirm, often dies off spontaneously, probably from the low temperature. The face is a more favourable soil on account of the congestions and disturbances of circulation which are caused by the special blood supply of that region; but anywhere it seems as if the bacillus had a difficulty in establishing itself, and, when it does, it passes into a slowly vegetating form of slight virulence. When lupus is inveterate, as I before remarked, it seems to have almost lost its infective power, rarely producing new patches, and in such a case we have a bacillus which has been cultivated for many years at a low temperature, and may, therefore, presumably be less virulent.

Mode of Infection.—In order to complete the bacillary theory of lupus we ought to be able to show how the bacillus gets into the skin. The first method which suggests itself is of course that of direct implantation in the skin, by a wound or otherwise. There are a few well-marked instances of this, and others of an ordinary wound which might have become infected with tuberculous virus, but in most cases this fact cannot be established. I have no doubt, however, that instances of inoculation will be multiplied when attention is directed to the subject.

There is, however, quite another hypothesis possible, that of direct inheritance. The hereditary character of tuberculous diseases has been generally explained by the inheritance of a predisposition, and since Koch's discovery of the bacillus this has been interpreted as a predisposition to be attacked by the bacillus. But recently an entirely different view has been put forward, especially by Baumgarten, that the bacillus is directly inherited, like the virus of syphilis, from one or the other parent. It is obviously impossible to discuss this theory now. It seems to me that the occurrence of absolutely congenital tuberculosis in bovine animals is clearly proved, and there are one or two cases of the same kind in the human infant. But Baumgarten appears to have pushed his theory much too far, especially in minimizing or even denying the possibility of infection with tubercle bacilli through the breath or otherwise, and there is a difficulty also in assuming such a long period of latency as is required to explain many cases of tuberculous disease.

I will only say that if direct inheritance of tubercle should be established, it would explain very well the origin of many cases of lupus. We must assume that the bacilli transmitted by inheritance settle down in some special part of the fœtus during its formation; and such a part might be the skin. Beginning its life there in unfavourable conditions, it might pass into the slow-growing, non-virulent form, which is assumed to be the cause of lupus.

This is all speculation; it does not pretend to be anything more; but speculations which are amenable to the criticism of fact are not always quite useless.

ON THE TREATMENT OF SCROFULODERMA AND LUPUS.

BY H. G. BROOKE.

Manchester.

Last year in this journal I gave a short description of a process of treating lupus, which had proved itself a valuable auxiliary in certain cases in which, for various reasons, the adoption of a more radical treatment was not possible. Since that time I have employed the ointment which I there recommended in a large number of cases, and have been thus able to determine more accurately the type of disease in which it is likely to be of service.

The following brief accounts serve to illustrate the extent of its utility:—

Case I.—Mr. W., æt. 47, came to me on February 5th, 1890, suffering from a patch of lupus of old standing. It involved the whole ear, extended forward covering the lower part of the cheek, and ended in a point near the nose. Stretching across the throat for several inches, just above the thyroid cartilage, was a line of large projecting lupus masses, three to four inches long and about half an inch wide. These lesions he had had for "many years"; he could not tell me exactly how long. The lobule of the ear was apparently filled with lupus tissue, and there was slight atrophy of the concha. The whole area was surrounded by a slowly progressing ridge of lupus tubercles; the centre somewhat atrophic and crowded with typical yellow-brown lupus masses, some of which were inflamed and ulcerating.

He had never undergone active treatment of any kind. Thirty-four years ago he had suffered from ulcerated glands in the neck on the same side, and although he himself was a ruddy and wiry-looking man, who did not suffer from any general ill-health, his children were weakly. Partly because he had recently entered into fresh business engagements, and partly, I suspect, on account of the fear of pain, he was most anxious to avoid any operative interference. I therefore ordered him to rub in very thoroughly, night and morning. the following ointment:—

℞.	Hydrarg. oleatis 5%	1 oz.
	Ichthyolis	10 ♏.
	Acidi salicylici	10 grs.

M. fiat Ung.

As this proved somewhat too strong and, owing to its thin consistency, dirtied his linen and looked unsightly, I ordered it to be weakened, and thickened, by the addition of a zinc and starch paste, with sufficient red Armenian bole and raw umber mixed in to match the colour of the skin:—

℞.	Zinci oxidi.	
	Amyli pulv. āā	¼ oz.
	Vaselini albi	½ oz.
	Hydrarg. oleatis 5%	1 oz.
	Acidi salicylici	20 gr.
	Ichthyolis	20 ♏.
	Ol. lavandulæ q. s.	

M. fiat Ung. coloratum.

This preparation, when well rubbed in, and then covered with potato-starch powder, completely disguises the disease and attracts very little attention. It is the formula which I now always use, subject to subsequent variations of strength, such as diminution of salicylic acid or increase of ichthyol.

With this form Mr. W. was quite content, and continued his treatment carefully. The improvement was marked, the diseased tissue beginning slowly to disappear. In April, suppurative spots appeared in the tubercles and became slightly painful during the application of the remedy. A preparation composed of zinc ointment, sulphur, and sulphide of mercury was substituted, and under this the pustulation gradually disappeared. He then returned to the original ointment. In order to accelerate the healing process I had a plaster made by Beiersdorf, containing the same constituents; but this he found too disfiguring and returned again to the ointment. Early this summer I proposed to use the galvanocautery to some of the larger remains of the tubercles near the nose, but as by this time the lobule of the ear had contracted greatly, and become firm, hard, and painless, and the lesion on the throat had almost completely healed, he preferred to continue as he was doing, in the hope that the final result on the cheek would be equally favourable. Latterly he has been painting some of the surviving nodules with pure carbolic acid, as suggested by Unna, and this has effected a further improvement.

The field of disease being now so considerably reduced, I hope to be able to induce him to submit to a surgical treatment of the portion which still remains.

Case II.—C. D., æt. 19, presented himself at the hospital on February 26th in this year. He had suffered from lupus according to his account for eight years, and during the whole of that time had never undergone any efficient treatment, nor did any serious attempt seem to have been made to cope with the disease. The left leg, from the knee downwards, was in a state of exaggerated elephantiasis, having quite double the circumference of its fellow, which was normally developed. It was livid, in a state of solid œdema, and densely strewn over with lupus nodules. The foot was equally deformed, the upper surface of the toes covered with the papillomatous growth so common in that situation, and the toes were distorted and atrophied. On its outer side, over and below the malleolus, there were half-a-dozen papillomatous excrescences of the size of raspberries standing above the surface. The nose was enormously hypertrophied, very papillomatous, and of an intense livid red colour; and since this condition spread over on to the flush patch of the cheeks on both sides, it reproduced the appearance of a well-marked rhinophyma. In this mass no lupus nodules could be isolated, nor were there any ulcerations; but at the corners of the eyes there were scrofulous sores, and over the right ramus a livid tubercular gumma had ulcerated through the skin.

The outlook here was anything but promising. I had treated two somewhat similar cases, and with very indifferent results, the whole limb in each case seeming to be so impregnated with lupus tissue that it grew up again from below as soon as that on the surface had been removed. Both of them, however, were middle-aged women, the origin of whose trouble dated from childhood, and whose systems were reduced by long suffering, whilst in this case the patient was a young man who, though manifestly of tuberculous habit, was, in spite of the great extent of his disease, otherwise robust and capable of active exertion. Having recently started in business on his own account he was very loth to undertake any treatment which might lead to the suspension of his work, so simply with the intention of adopting a temporary and palliative course I ordered for him the same ointment as for the previous patient, zinc and starch paste, with oleate of mercury, salicylic acid and ichthyol, to be well rubbed in twice daily.

He commenced treatment on February 26th. On March 5, when I saw him again, there was already very perceptible improvement. On April 2nd the diseased areas, though decreased in size, had become somewhat irritated by the ointment; this was therefore changed to:—

℞.	Pasta zinci c. amylo	1 oz.
	Ichthyolis	30 ♏.
	Ol. lavandulæ q. s.	
	Fiat Ung. coloratum.	

with great benefit, the whole of the nose and flush-patch becoming much paler and less prominent. On May 28th the original ointment was repeated. On September 17, the improvement had been steady and well marked. The elephantiasis of the lower leg has completely disappeared, the girth being no greater than that of the other side; the skin is still much thicker than normal, and interspersed with many faint lupus points, but is quite pale and pliant. The papillomatous growth has disappeared from the toes which, though not yet quite free from lupus, are smooth. The foot is still increased in circumference, but feels perfectly solid; the isolated papillomatous growths below the ankle are still there, but are pale, retracted, and much firmer. The granulomatous growth has disappeared from the cheeks, the nose is still enlarged, but very much less in size, firmer to the feel, much smoother, and not redder than with an ordinary rosacea. The sores near the eyes have healed and disappeared, and the tuberculous gumma has left a simple raised linear cicatrix. The patient has had no internal treatment, and has taken ordinary diet. He has followed his employment of selling milk in the streets of a densely populated manufacturing quarter of the town, and has, after the first few weeks, been entirely free from pain.

Case III.—Mr. S., æt. 42, came in January, 1890, with a mass of scrofulodermic gummata extending in a broad line from ear to ear across the front of the neck. There had been some attempts at healing, as was evidenced by the existence of ugly puckered and bridged scars; but the whole string was at this time acutely inflamed, and there were several sinuses and open sores. It was, in fact, a typical case of ulcerated "strumous adenitis." The lateral cervical glands, both deep and superficial, were enlarged but not inflamed.

The patient was a tall, thin, weedy-looking man, but he insisted that apart from this trouble he was perfectly well, that he had never been away from work for a day in his life through illness, and until seven years ago he had never had a single swelling or ulceration of any kind. He then noticed a red swelling near the right ear, which grew soft and burst; others soon followed, and by degrees the line across was complete. He had had much treatment of various kinds during the whole of the time. The family history is good. He was directed to rub in

℞.	Pasta zinci c. amylo Hg. oleatis 5%	āā.	1 oz.
	Acidi salicyl.		30 gr.
	Ichthyolis		40 ♏.

and the sinuses were to be packed with gauze strips smeared with iodoform and glycerine. On account of the unsightliness of the disease he always covered the whole with lint and a silk band. On June 7th, on account of the enlarged cervical glands, he was ordered liq. calcii chloridi ♏. 30 t. d. s. The sinuses were all closed, except one, which was deep and narrow. The patient living at a considerable distance, and not being able to come often enough to ensure the efficiency of the treatment, this last sinus, in spite of the use of the small spoon and caustics, did not finally heal until September. In October the tuberculous tissue had so far disappeared that I clipped away the old bridged scars and scarified others which were contracted and unsightly. November 12th, as he appeared somewhat anæmic and exhausted from overwork, a tonic mixture, containing iron, quinine, and strychnine, was ordered, and the calcium chloride was incorporated with the ointment:—

℞.	Lanolinis Hydrarg. oleatis (5 %)	āā.	¼ oz.
	Acidi salicyl.		15 gr.
	Calc. chloridi.		30 gr.
	Aq. Rosæ.		℥j.

Before Christmas I saw him again, and the whole of the tuberculous tissue appeared to have completely disappeared, and to be replaced by a firm sclerosed scar, as if from a burn. In February of this year there was a slight relapse in the original sore near the right ear. A little friable tissue was scraped out and the small wound filled with aristol. To-day (September 20th) he came again. Since the wound healed, which it did not take long to do, he had, in direct disobedience to my injunction, completely suspended all treatment. As a consequence of this neglect, the original sore and a little mass just over the thyroid had again enlarged and were secreting. They were spooned out and coated with a preparation of iodoform dissolved in an ethereal solution of tinct. benzoin. co., made according to a formula of my colleague, Mr. Walter Whitehead. The inunction of the ointment is to be resumed until all traces of these two lesions have disappeared. The rest of the scars are firm.

CASE IV.—A. T., æt. 16, a weakly and anæmic lad, who presented a condition very similar to that of the last patient, but in very much more intense degree. There were several sinuses of an inch or more in depth, and a whole mass of scabbed and ulcerating sores, into one of which on the neck the gland actually protruded, looking in size and shape like a cherry. The whole was cleansed with compresses of creolin lotion for a few days, and the ointment then applied on lint. The sinuses were scraped and syringed daily with perchloride of mercury solution ($1^{\circ}/_{00}$). Iodide of iron and calcium chloride were given internally. The improvement was soon manifested, the sinuses healing, and the inflammatory new growth being absorbed; even the gland disappeared, and the ulcer healed firmly without any surgical help. As it was at first impossible to apply the ointment by friction it was spread on lint in the usual way. As is usual with such patients, as soon as the disease was so far got rid of as to cause him no inconvenience, the treatment began to be neglected, and with the usual result. A second course is proving again successful, and some parts of the scar which remained after the former attack appear to be absolutely solid, others are disappearing satisfactorily. A little lupus had developed in places, but was confined to the site of the tubercular (scrofulodermic) growths.

These examples show the type of case in which the inunction of this ointment is of the greatest value. The action is most marked and rapid in cases of scrofulodermic tumours and ulcerations, but is also pronounced in those in which lupus has developed from the scrofulodermic basis. In pure lupus the effect is distinctly weaker, especially in those where there is much sclerosis or old scarring, and, indeed, except as a temporary or auxiliary measure I never make use of it when the disease is in the form of simple yellow-brown nodules without apparent inflammation. Even in some of these cases it is useful if time is of less importance than interference with work. Not one of the patients mentioned above, for example, has been absent from work for a single day.

CLINICAL NOTE.

A CASE OF KERATOSIS OF THE PALMS AND SOLES, PROBABLY OF ARSENICAL ORIGIN.

BY J. J. PRINGLE, M.B., F.R.C.P.,

Physician to the Skin Department at the Middlesex Hospital.

THE following brief article is evoked by a footnote appended to Dr. Radcliffe Crocker's paper on "Tylosis Palmæ et Plantæ" in the June number of this journal (p. 171).

Edith T., aged 20, an unmarried girl of no occupation, first attended my clinic at the Middlesex Hospital, in August, 1889, for psoriasis of moderate severity, and of five years' duration. The lesions were typical and in characteristic localities (elbows, backs of hands, knees, legs and scalp). For the first two months treatment by Haslund's method with large doses of iodide of potassium (20 to 30 grains three times daily) was tried, but without good results.*

In the end of October, 1889, she was first given arsenic in the form of Fowler's solution, four minims being administered after food three times daily. Slow but progressive improvement at once set in, part of which may no doubt be attributed to the local applications employed, viz., ointments of oil of cade, pyrogallol and resorcin, lotions of liquor carbonis detergens, and painting some of the spots with chrysarobin-traumaticin. On several occasions complete cure was almost attained, and the patient for a time discontinued her attendance, but relapses as frequently occurred. For one of these she attended on October 7th, 1890 (*i.e.*, eleven months after the first administration of arsenic, and of which she was at the time taking twelve minims three times daily), when my attention was accidentally drawn to the condition of her palms and soles, which had been previously noted as healthy. The girl herself said that she had noticed it in the beginning of August—*i.e.*, two months previously—but had paid no heed to it, as she suffered no pain or inconvenience from it.

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* From a pretty extensive further trial of this method of treatment I am aware that the case was not one of those most likely to be benefited by it, as it seems to be particularly suited to cases of severe inflammatory psoriasis, in which arsenic is contra-indicated, and where one is led to fear the supervention of exfoliative dermatitis; in such cases, however, I have repeatedly seen surprisingly good results from the treatment.

The following note was made:—"The hands and feet present a peculiar and unfamiliar appearance, confined to their palmar and plantar aspects. Solid, firm, brownish-yellow, warty elevations of epidermis are thickly studded over these parts as far as the middle of the distal phalanges of the fingers and base of the distal phalanges of the toes, giving them a rugose, shagreen-like appearance and a shotty feeling to touch; they vary in size from a pin's point to a split pea, some being fairly acuminate, others obtuse, others flat-topped. Besides these isolated prominences there is obvious general thickening of the epidermis of the part, with deepening of the natural furrows, but confined to those portions of skin where epidermis is normally thick, that is to say, not extending over the wrists or dorsal surface of the hands or over the corresponding parts of the feet. There is copious *hyperidrosis localis* of the affected parts, to which the patient says she has been subject as long as she can remember. The sweat from the feet is slightly fœtid, and the skin to some extent macerated by it, especially along the middle third of their internal aspect. There is no surrounding erythema or other evidence of inflammatory action about the affected parts."

The distribution of the little warty growths in the interdigital regions, along the radial and ulnar sides of the fingers and hands, in the centre of the palms, over the thenar and hypothenar eminences, and their thick aggregation along the deepened natural lines of the parts so closely resembled the distribution of many cases of so-called dysidrosis that close examination with a magnifying glass was made to determine their relation, if any, to the sweat organs. A positive conclusion on the point could not be arrived at; certainly a considerable number of the minuter prominences appeared to surround a sweat-pore, but equally certainly not all presented this relationship. No dilatation or plugging of sweat-pores was noted.

The case when shown at the Dermatological Society on October 9th provoked much discussion, and elicited the most divergent opinions. A few members maintained that the little growths were mere common warts, others that they were lichen planus papules. Dr. Crocker upheld the idea of their causal connection with the sweat disorder, while Mr. Hutchinson attributed them to the administration of arsenic,[*] a view which I myself had felt inclined to adopt, although the condition presented considerable differences from the diffuse scaly psoriasiform patches frequently attributable to that drug. Mr. Hutchinson, however, went a step further, and, to a certain extent, met Dr. Crocker's view with the emission of the very interesting statement of opinion that local hyperidrosis is sometimes the result of the administration of arsenic.[†] He thought that the condition might be, as it were, the indirect result of arsenic, hyperidrosis being the intermediate factor.

In order to aid in the elucidation of the case no change was made in its treatment.

On October 21st the following note was made:—"The condition is decidedly worse, the little prominences being more numerous, and their 'wartiness' more pronounced. The excessive local sweating persists as before, and there is slight maceration of the superabundant horny layer." No alteration in treatment was made, except that the patient was ordered to paint the hands with equal parts of tincture of belladonna and water three times daily.

My note of October 30th runs as follows:—"The disease is distinctly aggravated since last visit, the number of the larger warty growths being undoubtedly greater than formerly. The little prominences now extend to the very tips of the flexor surfaces of the fingers and toes. A considerable number are also present on the backs of the proximal phalanges of the fingers, especially of the ring and index fingers of the right hand, and of the index of the left. No lesions are present on the dorsum of the feet or toes. The nails exhibit no abnormal appearance. There is very slight, if any, difference in the hyperidrosis, although the patient states that she has carried out the treatment with belladonna as directed" (her veracity on the subject appeared to me somewhat dubious). Arsenic was now discontinued, and a pill containing gr. $\frac{1}{100}$ of atropin ordered three times daily.

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[*] I note that Dr. Török makes an allusion to the case, and my opinion of it in his London Letter addressed to the *Monatshefte für Prakt. Derm.*: Bd. xi., p. 502, 1890, and translated in the *Annales de Derm.*, May, 1891, p. 425.

[†] A considerable number of cases which I have since investigated with reference to the point seem to bear out the accuracy of Mr. Hutchinson's observation.

No local application was made to the hands or feet. A 10 per cent. solution of chrysarobin in liquor guttaperchæ was prescribed for the few remaining psoriasis spots.

At the end of November no alteration of the condition could be observed; it was noted as "certainly not progressive."

The patient thought she sweated rather less than formerly, but no diminution of the objective hyperidrosis could be determined. The psoriasis was cured, only chrysarobin staining persisting. Painting of the affected portion of the left hand morning and evening tentatively with a 10 per cent. solution of salicylic acid in collodion was recommended. She was also ordered ichthyol internally, gr. v., three times daily.

At the end of December a large amount of epidermis had separated from the left hand; but when the local treatment was suspended the condition in a few weeks resumed its original character. In March, 1891, the hands were kept for a week enveloped in compresses soaked with about 5 per cent. of resorcin, and covered with guttapercha tissue. The epidermis, thus rendered sodden and white, was removed by vigorous rubbing with bran, and a plaister-mull of salicylic acid and creasote thereafter applied to the apparently healthy subjacent skin.

During its application for a period of a fortnight the disease was naturally kept in abeyance; but as soon as its use was discontinued relapse occurred. As the girl suffered little or no inconvenience from the condition, and as the treatment incapacitated her from her household duties, it was decided to discontinue it. For the past year she has contented herself with the occasional use of salicylic acid in collodion, and at present she is exactly in the condition described on October 30th, 1889.

Remarks.—Somewhat similar keratoses have been so lately discussed in this Journal by Brooke and Radcliffe-Crocker that any lengthy remarks would here be out of place. It seems of interest, however, to put on record the notes, however bare, of a rare morbid condition, the nature of which is under discussion, with a view to the elucidation of its causation. Without entering minutely into the question of its differential diagnosis, it will suffice here to say that the disease was certainly not true palmar psoriasis nor psoriasiform syphilide, lichen planus, squamous eczema, nor verruca simplex. Nor was it the keratodermia symmetrica erythematosa of Besnier (of which I have recently seen a striking example), nor the keratodermia connected with sweat orifices, described by Besnier as *keratodermie angioidradénique*, which is considered by Hallopeau as a form of nævus (*Bulletin de la Soc. Française de Derm. et de Syph.*, March 1891, p. 116), nor the congenital condition variously known as tylosis, ichthyosis palmaris or plantaris, keratoma, etc. The affection was one *sui generis*, and I cannot but think that the bulk of evidence is in favour of its arsenical rather than of its sweat or hybrid origin, even although Dr. Besnier, in a characteristically charming and kind letter, writes:—" Sur *l'origine* arsenicale de ces kératoses (ou même de toute autre kératose) nous ne *comprenons pas*, en France, le rapport que Hutchinson et ses élèves croient exister entre l'arsenic et la kératose épidermique et nous considérons que vous vous faites *illusion*." I have little doubt that the patient had suffered from local hyperidrosis nearly all her life, as she was a pale, flabby girl, with cold extremities and other evidences of ill-balanced peripheral circulation.

The fact of the persistence of the disease long after the discontinuance of the drug may fairly be advanced against the theory of its causation by arsenic. But it must be borne in mind (1) that drug eruptions may persist for a long time, or even indefinitely, after the cessation of the causal drug; (2) that the eruption certainly appeared for the first time during the administration of arsenic, and progressed as long as its use was continued, while it has been stationary—albeit persistent—since its discontinuance. I am indeed inclined to think that its continued existence may be due to incomplete elimination, or more probably to the persistence of the *influence* of arsenic upon the (? central nervous) system, and of this I should regard the absence of relapses of psoriasis as some presumptive evidence.

Finally, I cannot but express my sympathy with Brooke in calling these diseases keratoses, and thus following Auspitz in trying to establish natural groups of dermatoses, while I as heartily agree with Crocker in deprecating the employment of unnecessary new names.

ADDENDUM.—Since the foregoing was through the press I have received a note from Dr. Besnier, kindly informing me that he has recently seen a case which has converted him to the view of the existence of a form of primary keratosis, due to the long-continued administration of arsenic in large doses. I have no doubt that Dr. Besnier will shortly publish the case in details, his comments upon which will be of the greatest interest and importance.

J. J. P.

CURRENT LITERATURE.

MERCURIAL ERUPTIONS. D. Morel-Lavallée (*Revue de Médicine*, Tome XI, June, 1891).

Morel-Lavallée, in an interesting and elaborate paper, discusses the Erythemata due to the internal use of mercurial preparations. First described about a century ago, and subsequently confirmed by several writers, the occurrence of these eruptions was almost forgotten and even denied. More recent observations, however, have conclusively established that a "hydrargyrie" of internal, or, to use Bazin's term, of pathogenetic causation undoubtedly can occur, similar in type to the eruption produced by the external application of mercurials. They have recurred in the same patient with the repeated administration of mercury, either in the same or a varied preparation, and have followed, not only the internal exhibition of the drug, but also the external application of neapolitan ointment, sublimate dressings, and the acid nitrate, vagino-uterine injections of the sublimate or biniodide, a calomel enema, and the inhalation of fumes. Gaucherand recognized three forms of eruption, viz., the scarlatiniform, the usual type; the eczematous, described by Alley; and other rare forms (rubeoliform, urticate, &c.). Morel-Lavallée considers a classification founded on the elementary lesions to be antiquated, and thinks that, if any grouping of the cases be called for, it would be better to have regard to the gravity and duration of the disturbance, and to note a *discrete, fugacious and insignificant form (H. mitis), an intense form*, and a *grave or even malignant form (H. maligna).* He does not accept Alley's second class "*simplex febrilis*," because amongst those cases which can be regarded as *mites*, judged by their duration and reaction upon the economy, a great number have commenced by general symptoms and a febrile malaise, at least in the invasion period, and, on the other hand, in more severe cases febrile movement has been slight or absent. The habitual type of the eruption is scarlatiniform, but, as far as our limited knowledge of the effects of intoxication by vagino-uterine injections goes, such eruptions incline rather to take on the polymorphic aspect of a macular, papular, or urticated roseola. Morel-Lavallée gives the following analysis of the twenty-two cases collected by him. The hydrargyrie succeeded the ingestion of the first dose at the following intervals of time: after several weeks, four times; after some days, five times; from a day to several hours, nine times. In most cases, only a single dose was given. The existence of *prodromata* is the rule. They are almost nothing in the slight cases, where the itching and burning dryness of the teguments precede by very little the eruption, which, however, at times, when it is very discrete, shows itself at once. It is usual to see them inaugurate the affection with a suddenness and intensity sufficient to simulate fever. It is a sudden illness, with violent fever, insomnia, cephalalgia, dryness of mouth and pharynx, anorexia, and general aching or a shiver. These symptoms subside, as a rule, on the appearance of the eruption, except in grave cases. In one case there was photophobia; in one, loss of voice. The *eruption* commences in different ways, most often by plaques of various dimensions, not prominent, with sinuous contours, disappearing momentarily on pressure, more marked on the abdomino-femoral regions, where they begin to coalesce. On the rest of the trunk there may be other less numerous and indistinct plaques. At other times there may be seen a diffuse scarlatinoid eruption, in large sheets of an uniform colour, but diffusing gradually to the periphery, where the redness becomes granulated. Sometimes it commences on the limbs, and then either it is a diffuse granular redness without distinct limits, or else, on the contrary, the eruption begins by rosy morbilliform tâches, which may become urticated, then papular, and finally coalescent. The commencement on the face has been once noticed. Itching is often most intense. The inguino-pubic region is most constantly and extensively affected. The scalp escapes. In a more severe degree the erythema is more persistent and generalized. The eruption may become vesicular and pustular; vesicles are only seen as a rule in the axillary and inguinal regions, and in the localized discrete erythematous eruptions due to the inunction of grey ointment. In the grave cases, oozing over considerable areas and true phlyctenæ are sometimes seen. The œdema may be considerable. Desquamation is often very marked and persistent in severe cases.

General and Visceral Symptoms.—Primary disturbances, due to the mercurial intoxication, must be distinguished from secondary disturbances due to the extensive affection of the skin. Stomatitis, or, at least, gingivitis, is frequent. There may be diarrhœa and vomiting, and prostration. Insomnia and delirium may occur in grave cases.

Duration may be ephemeral or extend to six months. The average is eight to twenty days. The *Prognosis* is always serious, especially if the etiology be not recognized. The *Diagnosis* is frequently very difficult, unless the practitioner be experienced in such matters and on the alert. Not to mention measles, the initiatory variolous rashes, and divers medicinal eruptions, it will be sufficient to point out specially scarlatina, primitive exfoliating dermatitis, eczema rubrum and erysipelas.

Etiology.—Individual susceptibility to the influence of mercury has a powerful influence, and it is to be noted that two of the cases were affected also by terebinthinates and chloral. In ten of the twenty-two cases, the eruption returned when mercury was again exhibited, and even when different preparations were used. Leaving aside external inunctions, calomel is the most frequent cause, but the eruption has followed the use of Van Swieten's liquor, Vigo's plaster, the proto-iodide, sublimate pills, mercurial pills, the application of acid nitrate of mercury, sublimate baths and dressings, a calomel enema, and vagino-uterine injections of the sublimate or biniodide. It has occurred after a single dose of calomel.

T. C. F.

MERCURIAL AND TURPENTINE RASHES. BÜRTZEFF. (*Meditsinskïa Pribavlenïa K' Morskomü Sbornikü*, May 1891, p, 358.)

Dr. Bürtzeff, of St. Petersburg, records a curious instance of cutaneous idiosyncrasy towards mercury in a syphilitic man. A single friction of grey mercurial salve was rapidly followed by the eruption of papular erythema all over the body, from head to foot. The exanthem having vanished, a hypodermic injection of a mercurial salt was tried. Exactly the same phenomena made their appearance after the first dose. An abundant papular rash also cropped out after a single dose of mercury given internally.

The author also communicates a case of lumbago, in which a slight local rubbing with a trifling quantity of a mixture of turpentine with chloroform quickly induced the appearance of erythema all over the back, accompanied by profuse perspiration and weak pulse, the phenomena gradually subsiding in about twelve hours.

VALERIUS IDELSON (Berne).

DERMATITIS HERPETIFORMIS DEVELOPING AFTER SEVERE MENTAL EMOTION AND SHOCK. (*Journ. Cut. and Gen.-Urin. Dis.*, Vol. IX., September, 1891.)

GEORGE T. ELLIOT records two cases of this condition, giving the notes in one at considerable length. In their course, clinical symptomatology, objective and subjective manifestations, they presented in a most decided manner the characteristics attached to the disease by Duhring, and later by Brocq; and they possessed, moreover, a stamp of individuality which entitled them to be considered as examples of some distinct morbid process, and not as atypical cases of some cutaneous disease or another, such as erythema, eczema, or pemphigus. The important and interesting feature is that in each case a precise etiological factor—a severe mental shock and emotion—immediately preceded the appearance of the disease, and could be accused as the determining and active cause of its development. The author mentions eight other recorded instances falling into the same category. He refers to the determination of functional and even organic diseases of the nervous system by a similar agency, and quotes Leloir's belief that predisposition plays an important rôle, the conditions necessary being the nervous and impressionable state of the subject or a predisposition to the dermatosis, so that, whereas in a healthy person the cutaneous neurosis produced by a mental shock would only be transitory, yet in one predisposed the process would be more accentuated, intense and permanent. Elliot believes that *all* cases of dermatitis herpetiformis represent dermato-neuroses of one grade or another, and that in all a disturbance of the nervous system is the important and essential etiological factor. The nature of the nervous lesion and its localization are at present problematical.

T. C. F.

URTICARIA PIGMENTOSA IN AN ADULT. (*Journ. Cut. and Gen.-Urin. Dis.*, Vol. IX., August, 1891, p. 296.)

ELLIOT presented to the New York Dermatological Society a male patient, aged 32 years, suffering from chronic constipation, catarrhal gastritis and a persistent (five years) eruption. The lesions were the size of a small pea, became darkly pigmented, and the pigmentation remained present for a long time, ultimately fading away. When a pigmented spot was rubbed a wheal formed, in a few moments becoming very prominent. There was great vaso-motor irritability of the skin, shown by the formation of urticarial wheals on slight rubbing. No itching. Dr. Fox remarked that in urticaria pigmentosa it had always seemed to him that the pigmented tubercles were the essential feature of the disease, and the urticaria a secondary element.

T. C. F.

DERMATITIS HÆMOSTATICA. (*Journ. Cut. and Gen.-Urin. Dis.*, Vol. IX., October, 1891.)

HERMANN G. KLOTZ, of New York, suggests the adoption of the name *Dermatitis hæmostatica* as an analogue to the names D. traumatica, venenata, calorica, and medicamentosa, for the common condition known popularly as "sore leg," *i.e.*, "the more or less chronic conditions of the leg in elderly people, mostly of the labouring classes, combined with varicose veins and other pathological alterations of circulation, in their various stages from simple dilatation of blood-vessels, swelling, and discolouration to hæmorrhage, hard infiltration, hyperplasia, atrophy, ulceration, and cicatrization." Where, he inquires, are these "sore legs" to be classified, now that the class "ulcers" has been rightly abolished? To include them with *eczema* or *dermatitis traumatica* fails to express the whole story. The single source common to all the conditions met with is obstruction of circulation in a more or less extended area of skin. External injury then often comes into play, and eczema is a frequent complication. The author proceeds to criticize the views of Auspitz and Kaposi, the causes of the local stagnation, the pathological processes which result directly or indirectly, and the symptoms. In his review of the subject he does not discuss the participation of the lymphatic system in the process, nor does he mention the curious, and often extreme, pseudo-ichthyotic and papillomatous conditions sometimes met with.

T. C. F.

MULTIPLE DERMOID CYSTS SIMULATING XANTHOMA TUBEROSUM. (*Journ. Cut. and Gen.-Urin. Dis.*, Vol. IX., August, 1891.)

S. POLLITZER records a case, a housemaid named Henrietta D., aged 24, which was exhibited to the Dermatological Society of London by Dr. Sangster. She had contracted syphilis three years before, and had suffered from three attacks of articular rheumatism and one of pleurisy with effusion. The viscera were healthy. The dermoid cysts appeared about seven years previously behind the ears and soon afterwards on the neck, arms and scalp; then on the chest, back and buttocks. Whilst the girl was under observation the cysts were still increasing in number on the chest, and 150 were scattered about. They varied in size from a pin's head to a small hazel-nut, and in colour from a *lemon-yellow* (most pronounced in those over the mastoid process, clavicles, etc.) to that of the normal skin. They were circumscribed, spherical, where not bound down, projecting and movable under the epidermis. Many were only detected by palpation. Two tumours were present on the palmar surface of the right index finger, one on the left thumb, and one on the right cheek. There were no subjective symptoms. Pollitzer found the tumours on microscopical examination to be typical dermoid cysts, the wall presenting a well-marked papillary layer, the contents made up of the usual cornified and degenerated epithelium and detritus, and in most cases a coil of hair and brownish or black pigment. The author refers to Jamieson's case (*Edin. Med.*

Journ., September, 1878, p. 228). The desirability of excising a tumour in all cases simulating xanthoma tuberosum is pointed out.

[This woman is now resident in the Lambeth Infirmary under Dr. Lloyd, and according to her account several of her family have been afflicted in a similar manner. At the present time the case is clinically indistinguishable from one of multiple fibromata.—*Reporter.*] T. C. F.

A CASE OF ACTINOMYCOSIS OF THE FACE. M. Legrain. (*Annales de Dermatologie et de Syphiligraphie*, October, 1891.)

The clinical features of this case may be given in a few words. A swelling began insidiously in the left cheek of a young man, who had a carious left superior molar tooth. It was supposed to be an abscess, but when punctured no pus escaped. It spontaneously subsided. A relapse occurred after an interval of several months. A few hard nodules were present. Two abscesses formed in this region, and were incised from the inner surface. There was very little pain, and no disturbance of health. The skin over the hard nodules was slightly stretched, and red. A few very superficial and small abscesses formed in the skin in this region.

When these abscesses were opened, and the pus evacuated, the probe touched an indurated zone. No traces of the ray fungus were detected in scrapings from this zone. Yet these scrapings, inserted antiseptically under the skin of the abdomen of a rabbit, produced a hard nodule in three weeks.

The nodule was seen, microscopically, to consist of embryonic cells, and some long filaments (10 to 50 *mm.*), coloured uniformly by Gram's method—some segments deeply, others not at all—and were very slightly branched. There were no pyriform bodies.

Portions of this nodule were sown in bouillon, gelatine, and agar. Actinomyces grew in all.

To what must be attributed the benignness of this case of Actinomycosis? This question leads the author to consider the possible variations in the virulence of the parasite. He draws attention to a very curious fact about the relation of *cladothrix* to *actinomyces*. The former is widely distributed through nature, and has been isolated by Professor Macé. Legrain has succeeded in producing actinomycosis nodules by inoculating rabbits with cladothrix. At least the nodules so produced had the same structure as those produced by inoculation of actinomyces.

He found that cultures made from the cladothrix nodule differed a good deal in character from the mother-cladothrix. The foci in the bouillon were much smaller, thinner, less dense, and slower in their development than those of the mother-fungus. But in the succeeding cultivations the original type seems to be regained.

It would seem from this that the mother-fungus, while in the body of the animal, becomes notably altered.

May not variations of this kind be supposed to have occurred in the ascomycetes of the benign case here recorded? H. Leslie Roberts.

SCLERODERMIA EN PLAQUES, LIMITED TO THE FOREHEAD AND SCALP. M. J. Brault. (*Annales de Derm. et Syph.*, October, 1891.)

A record of three examples of localized sclerodermia in a late atrophic stage.

The gist of these "observations and reflections" is that three young men had small patches of altered skin on the forehead and scalp. The alteration was atrophic, and the atrophy had affected the hairs, sweat glands and nerves, judging from the smaller number of hairs, the lessened quantity of sweat, and the diminished sensibility to touch and temperature.

The loss of hair in these patches was so considerable, and the cicatricial condition so evident, that the description of them might almost pass for alopecia, but for the anomaly of colour.

From the elaborate description of this, we gather that it was a brown colour, varied by more or less of the natural hue of the skin. In one of the young men the patch was limited to the scalp, and was so thin that it could be pinched by the fingers into a fold (a very unusual thing in true sclerodermia). We should have liked to have known if there had been hypertrophy in those patches at any previous period of their history.

The author's distinction between sclerodermia *en plaques* and morphœa is not usually recognized in this country, since we use the two names synonymously.

There are no suggestions as to etiology. The histology is not given. Examination for microbes, *nil.*

Treatment.—Cod-liver oil and arsenic; massage and constant current without much result.

The "reflections" consist chiefly of differential diagnosis of sclerodermia *en plaque.* Among the diseases it is to be distinguished from is "ringworm." This fact alone is enough to convince us that the sclerodermia *en plaque* of the author is very different from those localized patches of sclerodermia which are familiar to all dermatologists.

H. LESLIE ROBERTS.

THERAPEUTIC NOTES.

ON THE EMPLOYMENT OF DRYING LINIMENTS IN THE TREATMENT OF SKIN DISEASES.

The use of medicated gelatines, as recommended many years ago by Pick, is admittedly attended with some discomforts, and is not altogether satisfactory. The gelatine has to be warmed up every time it is employed, to be immediately and very uniformly applied to the part—a procedure of some difficulty and sometimes involving not a little pain—and the rapidity with which it dries reduces the possibilities of absorption of any drug incorporated in it to a minimum, as the film is not in very intimate contact with the skin. Pick now recommends gum tragacanth as a basis, a substance which, in contrast to gum arabic, does not dissolve in water, but melts down into a sort of syrupy mass, which may be very easily smeared over the skin, and which on drying leaves a thin, delicate and colourless film. He considers the following proportions the most generally useful:—

Gum tragacanth	5 parts
Glycerine	2 „
Distilled water	100 „

and denominates the basis thus obtained a *linimentum exsiccans.* It may be prepared either with cold or hot water, but preferably with the latter, as a thoroughly antiseptic preparation is thus obtained, which is not only easily applied, but is as easily washed off with a little tepid water. Its application gives rise to a sensation of coolness which is specially noticeable and gratifying when it is used to congested or inflamed skin. Its advantages over fats are that it is not greasy, does not spoil the clothes, does not disfigure, and no further dressing over it is necessary. Remedies which are soluble in water can be incorporated in the liniment by being first dissolved in the water used for its preparation. Substances insoluble in water can be rubbed into the basis in a fine state of division with very satisfactory results. Oily substances only alter its consistence and retard its drying to a perceptible degree when in very large proportions. Ichthyol, styrax, Peru balsam, oleum fagi, cadini, rusci, etc., may thus be used from 5 to 10 per cent. Insoluble substances, such as chrysarobin, zinc oxide, white precipitate, red and yellow oxide of mercury, iodoform, iodol, salicylic acid, etc., give the consistence of a paste to the preparation if in large proportions, but without altering its characters, except perhaps by increasing the rapidity with which it dries up, and thus enhancing its value. The preparations thus obtained are very stable, and produce no constitutional symptoms, even when their local action is energetic. An advantage of these drying liniments claimed by Pick is that they are easily applied, and may be used in out-patient practice. (*Vierteljahr. J. Derm., June, 1891*).

FOR BROMIDROSIS PEDIS.

Rabow recommends the use of the following powder in the treatment of this troublesome and disagreeable affection:—

℞ Acid Salicylic.
Aluminis,
Rice powder āā partes æquales.

To be sprinkled into the shoes and stockings every morning.—(*Therap. Monatshefte.* October, 1891.)

FOR FISSURED NIPPLES.

The following application is warmly praised by Hirst:—

℞ Bismuth. Subnitrat.
Olei Ricini āā ʒij.

Mix and paint over affected part.—(*Univers. Med. Mag.* No. 6, 1891.)

A WASH FOR SOFT CHANCRE.

Du Castel uses a 1 per cent. solution of carbolic acid in alcohol (90 per cent.). He states that if the sore is mopped with this solution, a proceeding which is not very painful, rapid healing takes place in a few days.—(*La Sem. Medic.*, 1891, No. 40.)

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